

# REMEDIAL INVESTIGATION REPORT

Texaco Strickland Site

Prepared for: Strickland Real Estate Holdings, LLC and  
Chevron Environmental Management Company

Project No. 180357 • January 9, 2024 • PUBLIC REVIEW DRAFT



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Aspect Consulting



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## Acronyms

AO	Agreed Order
APH	Air-Phase Hydrocarbons
Aspect	Aspect Consulting, a Geosyntec company
ASTM	ASTM International Standard
BTEX	benzene, toluene, ethylbenzene, and total xylenes
bgs	below ground surface
CEMC	Chevron Environmental Management Company
COC	contaminant of concern
COPC	contaminant of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CUL	Cleanup level
cVOC	chlorinated volatile organic compound
Ecology	Washington Department of Ecology
EDB	1,2-dibromomethane
EDC	1,2-dichloroethane
EPA	US Environmental Protection Agency
gpm	gallons per minute
IA	Interim Action
IAWP	Interim Action Report
Jiffy Lube	Jiffy Lube International, Inc.
LANPL	light nonaqueous phase liquid
LUST	leaking underground storage tank
MDEP	Massachusetts Department of Environmental Protection
mg/kg	milligrams/kilograms
mg/L	milligrams per liter
µg/L	micrograms per liter
MTBE	methyl tert-butyl ether

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MTCA	Model Toxics Control Act
NFA	No Further Action
PCB	polychlorinated biphenyls
PCE	tetrachloroethylene
OSHA	Occupational Safety Hazard Association
PLIA	Washington State Pollution Liability Insurance Agency
PLP	potentially liable party
QAPP	Quality Assurance Project Plan
RCW	Revised Code of Washington
RI/FS	Remedial Investigation/Feasibility Study
RIWP	Remedial Investigation Work Plan
SAP	Sampling Analysis Plan
SREH	Strickland Real estate Holdings, LLC
SVE	soil vapor extraction
TAP	Technical Assistance Program
TCE	trichloroethylene
TEF	toxic equivalency factor
TPHg	total petroleum hydrocarbon as gas
TPHo	total petroleum hydrocarbon as oil
USGS	US Geological Survey
UST	underground storage tank
VOC	volatile organic compound
WISHA	Washington Industrial Safety and Health Act

## Executive Summary

Aspect Consulting, a Geosyntec company (Aspect) prepared this Remedial Investigation (RI) report for the Texaco Strickland Site (the Site), located at 6808 196<sup>th</sup> Street Southwest in Lynnwood, Washington (the Property; Figure 1). The Site is defined as any area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located (Washington Administrative Code [WAC] 173-340-200). The Property has been vacant since 2018 and is recorded by the Snohomish County Tax Assessor as tax parcel #27042000200600.

Two potentially liable parties (PLPs), Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC), entered into Agreed Order No. 14315 (the AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a third PLP for the Site. Jiffy Lube has not participated in any of the work discussed in this RI report.

## Site History and Subsurface Conditions

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The Property was occupied by a Texaco-branded service station from 1959 until 1977 and was converted into a lube facility, which operated continuously under various brands until 2006. Historical service station operations at the Property resulted in a release or releases of gasoline-range petroleum hydrocarbons to the subsurface, impacting soil, groundwater, and soil gas on the Property, and contaminated groundwater has migrated off-Property. In addition, releases of oil- and diesel-range petroleum hydrocarbons associated with lube facility operations impacted soil and groundwater.

Historical environmental investigations occurred from 1995 through 2011 as part of independent cleanup activity performed at the Property. Ecology determined the releases of hazardous substances documented at the Property by those investigations represented a potential threat to human health and/or the environment. In 2015, Ecology determined that SREH and CEMC were PLPs with respect to the release(s) of gasoline-range petroleum hydrocarbons, and the PLPs entered into the AO in 2018. Remedial investigations have been conducted between 2019 and 2021 to define the nature and extents of contamination at the Site, and this report presents results of those remedial investigation activities.

On December 14, 2020, Ecology determined Jiffy Lube was a PLP as well with respect to oil- and diesel-range petroleum hydrocarbons released at Site. However, Jiffy Lube is not a party to the 2018 AO, nor a participant in the remedial investigation activities described in this RI report.

Site geology generally consists of imported fill to depths up to 10 feet below ground surface (bgs) and Vashon till extends to the maximum depth explored at the Site 40.5 feet bgs. Groundwater is present at the Site in a surficial, unconfined, and potentially perched aquifer and is encountered at depths ranging from 7 to 16 feet bgs at the interface of the

imported fill and Vashon till. Groundwater flow at the Site and adjacent properties is generally to the southwest, with some minor seasonal variation.

## Conceptual Site Model

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Based on an evaluation of prior environmental investigations at the Site and the AO RI investigations, the affected media at the Site is soil, groundwater, and soil gas. COCs have been detected in indoor air at the Site, but are likely present due to background sources. The Site contaminants of concern (COCs) are:

- Gasoline-, diesel-, and oil-range total petroleum hydrocarbons (TPHg, TPHd, and TPHo, respectively); benzene, toluene, ethylbenzene, and total xylenes (BTEX), and naphthalene in soil and groundwater
- TPH, benzene, and naphthalene in soil gas and potentially indoor air

The COCs retained for the Site are based on the occurrence of analytes identified above soil and groundwater MTCA Method A cleanup levels, subsoil soil gas MTCA Method B screening levels, or indoor air MTCA Method B cleanup levels.

The primary objective of the AO RI was to define the nature and extent of contamination resulting from releases at the Property to assess potential exposure pathways to human health and the environment so that a final cleanup action for the Site can be selected. Free-phase light nonaqueous liquid (LNAPL) was present in monitoring wells adjacent to former service station infrastructure (the former USTs, pump islands, and associated conveyance piping), which is the presumed source of the gasoline-range release(s). The LNAPL extent was defined by the occurrence in monitoring wells on the other side of the Property building (which, in September 2022, was demolished as part of the Interim Action). Jiffy Lube operations and USTs containing waste oil are the presumed sources of diesel- and oil-range petroleum hydrocarbons in soil and groundwater at the Property. Ecology has determined that releases from the gasoline service station and the Jiffy Lube facility have commingled at the Site (Ecology 2020).

The extent of soil contamination is laterally delineated and vertically bounded through the historical and AO RI subsurface investigation results. Generally, soil contamination is centered around and downgradient of the LNAPL at the Site as shown on Figure 2. The presence of LNAPL and sorbed-phase contamination in soil has resulted in groundwater contamination, which is also laterally and vertically delineated as part of the AO RI. The groundwater plume extends down- and crossgradient from the observed soil impacts and LNAPL plume and extends off-Property to the west and potentially to the south.

These soil and groundwater impacts have resulted in contamination in soil gas at the Property. As part of the AO RI, the potential for petroleum vapor intrusion into the south-adjacent property building (Chri-Mar Apartments) was assessed. The extents of soil gas impacts have been laterally delineated, and a Tier II vapor intrusion assessment, including four rounds of indoor air sampling in the building crawlspace, was performed. Sample results indicate that indoor air exceedances do not correlate with crawlspace exceedances and are not the result of vapor intrusion from the Site. Therefore, the results of the vapor intrusion assessment do not suggest a currently completed vapor intrusion pathway into the south-adjacent building.

The potential exposure pathways from the contamination that may affect human health and the environment include the soil-leaching-to-groundwater pathway, the groundwater-ingestion pathway, and the vapor intrusion pathway. During the AO RI, these pathways were demonstrated to be potentially incomplete.

The Site has been fully characterized with respect to the nature and extent of contamination and the potential exposure pathways. These formed the basis for selection of the appropriate cleanup standards, including cleanup levels, points of compliance, and areas requiring remediation, to be applied to the Site to ensure the protection of human health and environment. These cleanup standards will form the basis of cleanup alternatives to be evaluated in the Feasibility Study.

## Conclusions and Recommendations

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Contaminated soil and groundwater at the Site are a result of gasoline, diesel, and waste oil releases from historical operations at the Property. The areas to be addressed by a cleanup for this Site have been delineated based on the affected media, nature and extent of contamination, and cleanup standards described in this report. The potential exposure pathways for human health and terrestrial ecological risk are currently incomplete.

Concurrently with the RI, an interim action (IA) was conducted at the Site and removed the LNAPL, removed on-Property impacts to soil above MTCA Method A cleanup levels to the extent practicable, and incidentally removed impacted groundwater at the Site as needed for construction (Aspect, 2023b). The IA was completed in January 2023 and the final Interim Action Report (IAR) was transmitted to Ecology on April 27, 2023, in accordance with the AO. Post-IA groundwater monitoring will be conducted to inform the evaluation of cleanup alternatives in the feasibility study (FS) process as described in WAC 173-340-350(8).

The IA soil performance monitoring and post-interim action groundwater monitoring results will be incorporated into an updated conceptual site model as part of the FS, and the updated conceptual site model will form the basis for preparing cleanup alternatives to be evaluated in the FS for selection of a final cleanup remedy for the Site.

*This Executive Summary should only be used in the context of the full report.*

# 1 Introduction

Aspect Consulting, a Geosyntec company (Aspect) prepared this Remedial Investigation (RI) report for the Texaco Strickland Site (the Site), located at 6808 196<sup>th</sup> Street Southwest in Lynnwood, Washington (the Property; Figure 1). The Site is defined as any area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located (Washington Administrative Code [WAC] 173-340-200). The Site is identified in Ecology's cleanup site database as the Texaco Strickland Site<sup>1</sup>, Cleanup Site ID 12541, Facility ID 27496218, and underground storage tank (UST) site ID 6802. The Jiffy Lube Store 2068 Site is also located at the Property, with the same Facility and UST IDs and Ecology Cleanup Site ID of 5805. The Property is recorded by the Snohomish County Tax Assessor as tax parcel #27042000200600.

Historical operations at the Property resulted in the release of petroleum hydrocarbons to the subsurface, impacting soil, groundwater, and soil gas on the Property, and contaminated groundwater has migrated off-Property.

Two potentially liable parties (PLPs), Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC), entered into Agreed Order No. 14315 (the AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a third PLP for the Site. Jiffy Lube has not participated in any of the work discussed in this RI report.

## 1.1 Project Objectives

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The purpose of this RI is to define the nature and extents of contamination at the Site. The report was prepared to comply with the requirements of the AO and to document that the RI meets the requirements of WAC 173-340-350(7). The RI report details the Site investigation activities to date, presents a conceptual site model, and proposes cleanup standards applicable to the Site.

This document was prepared in general accordance with the requirements of the Washington State Model Toxics Control Act (MTCA), which is the cleanup regulations adopted by Ecology in Chapter 173-340 of the WAC.

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<sup>1</sup> The Site is also listed under the alternate site names of Aloha Café, Jiffy Lube 2068, Jiffy Lube Store 2068, Minit Lube 1102, Minut-Lube 1102, Quaker State Minit Lube 11 Lynwood, Quaker State Minit Lube Inc 11 Lynwood, Shell 6808, and Shell 6808 196<sup>th</sup> Lynwood.

## 2 Background

The following section provides general information, history, and use of the Property and adjacent properties, and discusses the geologic and hydrogeologic setting.

### 2.1 Property History and Description

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The Property is zoned as commercial and identified by Snohomish County Parcel Number 27042000200600. Based on the construction date of the service station building, the Property was first developed in approximately 1959. A review of historical documents has established the following operational history for the Site (Conestoga-Rovers & Associates [CRA], 2011; Aspect, 2019; Aspect, 2020):

- **1959 to 1977 – Texaco-branded Service Station:** The property was initially developed with a Texaco-branded service station in 1959. Based on construction drawings, the service station consisted of two 4,000-gallon leaded gasoline USTs; one 6,000-gallon leaded gasoline UST; a single pump island with three pumps; associated product conveyance piping; an in-ground vehicle hoist; a 550-gallon used oil UST; and a 1,000-gallon heating oil UST.
- The historical Site features are shown on Figure 2. The three gasoline USTs were removed by 1977 (Aspect, 2020). The 550-gallon waste oil and 1,000-gallon heating oil USTs remained in place until the 2022 Interim Action excavation (Aspect, 2023b).
- **1977 to 2006 – Jiffy Lube/Equilon Lube Facilities:** In 1977, the property was converted to a lube facility, which operated continuously until approximately 2006. During this time, two additional USTs were installed on the property. According to Ecology’s UST database, a 500-gallon used oil UST and a 3,000-gallon motor oil UST were installed in June of 1982. In 1995, these two USTs were decommissioned: the 500-gallon used oil UST was closed in place, and the 3,000-gallon motor oil UST was removed (see following section).
- **2006 to 2018 – Aloha Café:** In 2006, the building was renovated into a restaurant, Aloha Café, which operated until 2018.
- **2018 to Present** – The property has been vacant since 2018 to allow for the remedial investigation activities and cleanup actions. In September 2022, the building was demolished as part of the Interim Action.

### 2.2 Adjacent Property Descriptions

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A brief description of relevant historical and current uses of the surrounding properties is included below.

#### 2.2.1 North – Upgradient 68<sup>th</sup> Center Property

A commercial strip mall is located to the north of the Property across 196th Street SW. This property (tax parcel 27041700307000) was historically occupied by a Shell-branded service station with confirmed releases of petroleum and impacts to soil and groundwater.

Shell is pursuing an opinion through the Washington State Pollution Liability Insurance Agency's (PLIA's) Technical Assistance Program (TAP).

### **2.2.2 East – Edmonds Community College Property**

The parcel to the east of the Property (tax parcel 27042000103100), across 68th Ave West, is currently used as parking for Edmonds Community College. This parcel was previously occupied by an Exxon-branded service station, which had confirmed releases of petroleum hydrocarbons to soil and groundwater. A remedial excavation was conducted on the property in 2005, and a No Further Action (NFA) determination was issued by Ecology in 2007.

### **2.2.3 West – Strip Mall**

The parcel to the west of the Property (tax parcel 27042000200800) is commercially occupied by a strip mall, where a dry cleaner (Slater's One Hour Cleaners) historically operated. According to city directory records, Slater's One Hour Cleaners operated from at least 1971 through at least 2013.

### **2.2.4 South – Chri-Mar Apartments**

The parcels to the south of the Property (tax parcels 27042000201000 and 27042000200900) are occupied by a multi-family residential apartment building owned by FWAK, LLC and operated as Chri-Mar Apartments. Chlorinated solvents in soil, groundwater, and soil gas were documented on this property as part of environmental characterization work performed by Environmental Associates, Inc. (EA) on behalf of that property owner (EA, 2016a and 2018). Petroleum hydrocarbons were not detected in soil or groundwater at this property during the EA work in 2016 and 2018; however, benzene was detected in soil gas, indoor air, and outdoor air as part of the work performed by EA (EA, 2016a and 2018).

## **2.3 Geologic and Hydrogeologic Setting**

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Site geology generally consists of imported fill to depths up to 10 feet below ground surface (bgs) and Vashon till extending to the maximum depth explored at the Site of 40.5 feet bgs. The imported fill extends to depths of approximately 4 to 10 feet bgs and was encountered in all soil borings at the Site as part of historical and current RI site investigation activities (Sections 3 and 4, respectively). Fill material at the Site is comprised of sand with gravel and sand with silt and gravel. The sand content varied from poor- to well-graded, and the sand and gravel were subangular to subrounded. The fill was generally loose, and the fines (where present) were low plasticity.

Beneath the fill, Vashon till was encountered in all soil borings at the Site as part of historical and current RI site investigation activities (Sections 3 and 4, respectively), which is consistent with the US Geological Survey (USGS) mapped geologic unit of the area (USGS, 1983). The till encountered during subsurface explorations had a variable composition and included silt (MH); sandy silt with gravel (ML); silty sand and silty sand with gravel (SM); sand with silt and sand with silt and gravel (SW/SP-SM); and sand with gravel (SP). The density of the till was consistent across the Site, ranging from medium dense at the fill-till interface and increasing in density to very dense within a few feet below the interface. The top few feet of till appears to have been weathered in place prior

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to being buried under fill material during redevelopment of the area in the early 20<sup>th</sup> century.

The majority of the subsurface explorations conducted during both historical and current RI site investigations were completed using a hollow-stem auger drilling rig, and geotechnical information was collected for nearly all borings. Based on the observed blow counts, the weathered, medium dense top of till varied in thickness between 2.5 and 15 feet. The underlying unweathered till is differentiated based on the blow counts and inferred density during drilling. Boring logs from the RI conducted by Aspect are included as Appendix A.

Groundwater is present at the Site in a surficial, unconfined, and potentially perched aquifer and is encountered at depths ranging from 7 to 16 feet bgs at the interface of the imported fill and Vashon till. The horizontal hydraulic gradient is steep (0.05 foot/foot). Groundwater flow at the Site and adjacent properties is generally to the southwest, with some minor seasonal variation.

## 3 Prior Investigation and Cleanup History

The following section describes the investigation and cleanup activities at the Site conducted by others prior to the AO. The investigation activities were compiled in the RI Work Plan (RIWP; Aspect, 2019) and RIWP Addendum (Aspect, 2020).

### 3.1 Underground Storage Tank Removals and Closures

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At least seven USTs have been installed and operated on the Property. Four of the USTs had been removed by 1995; one was closed in place; and two were confirmed to be present at the Property by a geophysical survey in 2019 (Section 4.1.1). Three USTs were permanently decommissioned and removed from the Property (including the one closed in place) during the 2022 Interim Action (Aspect, 2023b). A description of installation date, decommissioning date and method, and tank operator is included below and summarized in Table A below.

#### 3.1.1 1977 UST Closure

The three gasoline USTs associated with the Texaco-branded service station were decommissioned (removed) in 1977 when the Property was converted to a Jiffy Lube/Equilon lube oil facility (Aspect, 2020). Based on the building plans for the original service station, these USTs were located in the northeastern corner of the Property, and the dispenser islands were located in the north-central portion of the Property (Figure 2). Decommissioning details are not available; however, a Snohomish County tax assessor indicates the tanks were indeed removed in 1977 (Aspect, 2020).

#### 3.1.2 1995 UST Closure

Petroleum-impacted soil related to the former Jiffy Lube/Equilon lube oil facility was discovered in 1995 during removal of a 3,000-gallon new oil UST and closure-in-place of a 500-gallon waste oil UST (Figure 2). The 3,000-gallon new oil UST was located on the west side of the building, and the 500-gallon waste oil UST was located inside the former building. Nowicki & Associates (Nowicki) oversaw the removal of approximately 65 tons of soil impacted with total petroleum hydrocarbons as oil (TPHo) above the MTCA Method A cleanup level from the area of the former 3,000-gallon new oil UST (Nowicki, 1995). Post-excavation sidewall and bottom samples collected by Nowicki concluded that soils impacted by TPHo exceeding the MTCA Method A cleanup levels had been removed.

The 500-gallon waste oil UST located beneath the building was decommissioned by cleaning and slurry filling. A soil boring was advanced approximately 4 feet south of the tank (location SB, Figure 2), and samples were analyzed for TPHo and TPH as gasoline (TPHg). Both TPHo and TPHg were detected at concentrations exceeding MTCA Method A cleanup levels at depths of 1.3 and 2 feet bgs.

The releases were reported to Ecology in 1995. The Site was subsequently listed with Ecology's leaking underground storage tank (LUST) program, as Site ID #6802.

### 3.1.3 UST Inventory Summary

A summary of all known USTs at the Site is included below as Table A. Further discussion of the UST inventory at the Property is included in Section 4.1.1 below.

**Table A. UST Summary**

UST	Contents	Installation Date	Decommissioning Date and Method	Tank Operator
4,000-gallon	Gasoline	1959	1977 – Removed	Texaco
4,000-gallon	Gasoline	1959	1977 – Removed	Texaco
6,000-gallon	Gasoline	1959	1977 – Removed	Texaco
3,000-gallon	New Oil	1982	1995 – Removed	Jiffy Lube/Equilon
500-gallon	Waste oil	1982	2022 – Removed	Jiffy Lube/Equilon
500-gallon <sup>(a)</sup>	Heating Oil	Unknown	2022-Removed	Jiffy Lube/Equilon
500-gallon <sup>(b)</sup>	Unknown	Unknown	2022-Removed	Unknown

**Notes:**

- (a) The installation date of the 500- gallon heating oil UST cannot be confirmed but was reported to be 1989 (CRA, 2011). However, station construction diagrams show it was likely installed along with the station in the 1950s.
- (b) This unknown UST was identified on the north side of the building during the geophysical survey. Station construction diagrams indicate this was likely used as a waste oil storage tank.

## 3.2 Historical On-Property Environmental Investigations

Environmental investigations were completed by others at the Property between 1995 and 2012:

- Nowicki, 1995 – Nowicki advanced two soil borings (SB1 and SB2) to the north of the existing building.
- FINEnvironmental, Inc. (FINE), 2003 – FINE completed a Phase I Environmental Site Assessment (ESA) that identified the Property had operated as a Texaco-branded gasoline service station prior to 1977.
- GeoEngineers, Inc. (GeoEngineers), 2004 – GeoEngineers completed a Phase I ESA that resulted in similar findings to the Phase I conducted by FINE.
- Cambria Environmental Technology (Cambria), 2006 – Cambria installed five monitoring wells (MW-1 through MW-5) and advanced one soil boring (SB-1) at the Property.
- Conestoga-Rovers & Associates, Inc. (CRA), 2007 – CRA installed five monitoring wells (MW-6 through MW-10) on the Property.
- CRA, 2011 – CRA advanced two soil borings (SB-3 and SB-4) and summarized Site characterization data collected to date.
- CRA, 2014 – CRA advanced three additional soil borings (SB-5 through SB-7).

A complete summary of historical environmental investigations completed at the Site served as the primary basis of the data gaps identified in the RIWP (Aspect, 2019).

### 3.3 Off-Property Environmental Investigations

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In February 2016, EA conducted a limited subsurface investigation at the adjacent property to the south at Chri-Mar Apartments as a preliminary assessment of the potential for chlorinated solvent and petroleum hydrocarbons in the subsurface from upgradient properties (EA, 2016a). EA advanced five borings, B-01 through B-05 during the investigation:

- No TPHg, TPH as diesel (TPHd), TPHo, or benzene, toluene, ethylbenzene, and total xylenes (BTEX) compounds were detected in soil or groundwater at the five boring locations (B-1 through B-5, Figure 2). Grab soil gas samples were collected from borings B-1 and B-3, and concentrations of benzene exceeded the MTCA Method B subslab soil gas screening level at both locations (EA, 2016a).
- Tetrachloroethene (PCE) was detected in soil above the MTCA Method A cleanup level in borings B-2 and B-3. Likewise, PCE was detected in groundwater above the MTCA Method A cleanup level in a grab sample collected from boring B-2. PCE and trichloroethene (TCE) were detected in groundwater above their MTCA Method A cleanup levels in a grab sample collected from boring B-3. Soil gas samples were also collected from B-01 and B-03 using a temporary screen set between 2 and 5 feet bgs, and concentrations of TCE exceeded the MTCA Method B subslab soil gas screening level at B-3 (EA, 2016a).

In March 2016, EA returned to the Chri-Mar Apartments property to conduct indoor and outdoor air sampling (EA, 2016b). Two indoor air samples were collected from the interior of the Chri-Mar Apartments, and one outdoor air sample was collected. Samples were collected over a 24-hour period.

- Benzene was detected in both indoor air samples and the outdoor air sample at concentrations exceeding the MTCA Method B indoor air cleanup level (EA, 2016b). The benzene concentrations in the outdoor air sample indicate a background source to indoor air in this suburban area.
- PCE was detected in both indoor air samples and the outdoor air sample at concentrations less than the MTCA Method B indoor air cleanup level. TCE was detected in one of the two indoor air samples at a concentration less than the MTCA Method B indoor air cleanup level.

In September 2018, EA returned to the Chri-Mar Apartments property to conduct additional subsurface investigation to characterize the extents of chlorinated solvent-impacted soil and groundwater previously documented at that property (EA, 2018). EA

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installed four monitoring wells (CMW-1 through CMW-4<sup>2</sup>) and three additional soil borings (B-6 through B-8).

EA only analyzed for chlorinated solvents and not petroleum hydrocarbon compounds. PCE was detected in soil at a concentration exceeding the MTCA Method A cleanup level at CMW-1. Groundwater was only encountered at monitoring wells CMW-1 and CMW-4 (CMW-2 and CMW-3 remained dry after installation), and in a temporary well screen set in boring B-7. In groundwater, PCE and TCE were detected at concentrations exceeding their respective MTCA Method A cleanup levels at CMW-1. PCE and TCE were not detected in groundwater samples collected from B-7 and CMW-4 (EA, 2018).

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<sup>2</sup> EA named the monitoring wells MW-1 through MW-4, but they are labeled as CMW-1 through CMW-4 throughout this report to differentiate them from MW-1 through MW-4 installed on the Property by Cambria in 2006.

## 4 Agreed Order Remedial Investigation

This RI defines the nature and extent of petroleum impacts in soil, groundwater, and vapor at the Site. As part of the AO, the historical environmental investigations in Section 3 were reviewed and evaluated for data gaps related to the nature and extent of contamination at the Site. Based on that review, nine data gaps were identified:

1. **Potential presence of pre-1977 underground service station infrastructure.** Further evaluation was needed to assess infrastructure, including both piping and USTs, that were still present at the Property.
2. **Lateral extent of Site soil impacts.** Further evaluation was needed in specific areas to complete the Site characterization and evaluate remedial options.
3. **Potential comingling of separate petroleum releases to the Subject Property.** Further evaluation was needed in specific areas to assess potential comingling of the documented TPHo and TPHg releases.
4. **Vertical extent of Site soil impacts.** While the majority of locations were vertically delineated with regards to petroleum impacts to soil, some locations in the north-central portion of the Site lacked vertical delineation where soil samples were only collected to a maximum depth of 17.5 feet bgs.
5. **Lateral extent of Site groundwater impacts.** Further evaluation of crossgradient and downgradient water quality was needed to complete the Site characterization and evaluate remedial options.
6. **Potential upgradient sources.** Further evaluation of upgradient soil and water quality was needed to complete the Site characterization.
7. **Potential comingling with off-Property chlorinated solvent releases.** Further evaluation was needed to assess whether release(s) of chlorinated solvents or other petroleum-based cleaners from the adjacent Slater's One Hours Cleaners are comingling with releases of petroleum hydrocarbons from the Site.
8. **Light Nonaqueous Phase Liquid (LNAPL) assessment/recoverability.** LNAPL had been documented in select Property monitoring wells by historical environmental investigations. The delineation of the LNAPL accumulation was incomplete, and LNAPL recovery options have not been evaluated. LNAPL recoverability testing was needed, and practical LNAPL recovery efforts implemented.
9. **Soil vapor migration/intrusion.** The potential for migration of petroleum-related soil vapor into on- and off-property structures required further evaluation.

The RI has been conducted in an iterative process to close the identified data gaps related to the nature and extent of contamination at the Site.

The scope and rationale for the RI activities conducted to date are provided in the following documents:

- RIWP (Aspect, 2019)
- RIWP Addendum (Aspect, 2020)
- Progress Report No. 9 (Aspect, 2021a)
- Vapor Intrusion Assessment Report (Aspect, 2022a)

These documents form the basis for the RI and should be referenced in conjunction with this report. A summary of field investigations and results is provided in the following sections.

## 4.1 2019 RIWP Implementation

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The following subsections document the activities conducted during implementation of the RIWP. All work was conducted in accordance with the Sampling and Analysis Plan / Quality Assurance Project Plan (SAP/QAPP), which was included as Appendix E of the RIWP (Aspect, 2019).

### 4.1.1 Geophysical Survey

Aspect subcontracted Philip Duoos to conduct electromagnetic and ground penetrating radar (GPR) geophysical surveys at the Property. The purpose of these surveys was to evaluate the potential presence of any remaining subsurface service station infrastructure, including potential USTs and product/vent lines. The geophysical survey was completed on June 3, 2019.

The geophysical survey noted that a large excavation was present in the northeast portion of the Property where station construction drawings indicated the three gasoline USTs were located. The results of the geophysical survey confirmed that the three gasoline USTs were removed from the Property.

Two probable concrete slabs were encountered in the north central portion of the Property, at the location of the former pump islands. Numerous probable pipes were encountered extending from the excavation extents to the concrete slabs, indicating that product conveyance piping still exists. The depths of these probable pipes ranged from approximately 2.5 to 4 feet bgs.

What appeared to be an unknown UST was also detected on the north side of the existing building. The unknown UST was located at approximately 3.2 feet bgs. Another UST was detected at the southeast corner of the existing building and was assumed to be the 500-gallon heating oil UST based on the station construction diagrams.

A summary of all former USTs at the Site is included in Table A in Section 3.1.3. The geophysical survey report is included as Appendix B. The results of the geophysical survey were evaluated prior to mobilizing for other RIWP activities.

### 4.1.2 Soil Borings

In June and July 2019, a total of 13 soil borings (B-05 through B-08 and MW-11 through MW-19) were completed as part of the RIWP implementation by Holt Services, Inc.

(Holt) of Edgewood, Washington, under the supervision of Aspect. An attempt was made to complete the soil borings using direct-push equipment, but the direct-push drill rig met refusal shortly after encountering the glacial till. This attempted boring was identified as AB-01 and was subsequently replaced by boring B-06, which achieved the depth targeted in the RIWP (25 feet bgs). Therefore, soil borings throughout the RI were completed using a hollow-stem auger drill rig. As part of the initial RIWP implementation, soil samples were collected at 2.5-foot intervals. Soil samples were preserved in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A and were field screened using visual, olfactory, water sheen, and volatile headspace (using photoionization detector [PID]) methods.

At boring locations where field-screening indicated potential petroleum hydrocarbon impacts, up to four soil samples were submitted for laboratory analysis of chemicals of potential concern (COPCs) identified in the RIWP: TPHg, TPHd, TPHo, BTEX, 1,2-dibromomethane (EDB), 1,2-dichloroethane (EDC), methyl tert-butyl ether (MTBE), naphthalene, and lead. Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and polychlorinated biphenyls (PCBs) are not considered Site COPCs based on analytical testing performed by Cambria (CRA, 2011).

One sample was submitted from the soil-groundwater interface at locations with no field-screening indication of impacts. Soils were logged under the direction of a Washington State licensed geologist in accordance with the Unified Soil Classification System. Soil boring logs are included as Appendix A.

#### **4.1.3 Monitoring Well Installation and Groundwater Sampling**

As part of the same investigation in June and July 2019, monitoring wells were installed in 9 of the 13 soil borings and were completed as MW-11 through MW-19 (Figure 2). Monitoring wells were constructed in accordance with WAC 173-160 by Holt. Monitoring wells were constructed using 2-inch-diameter, Schedule 40 PVC blank casing and 0.010-inch slot well screens. The monitoring wells were screened from 5 to 20 feet bgs at each location to accommodate seasonal fluctuations of groundwater. Monitoring wells were completed with protective seals and secured with locking well caps and were surveyed by PLS, Inc. of Issaquah, Washington, for horizontal locations and elevations. As-built diagrams of the monitoring wells are included in Appendix A.

Following installation, each monitoring well was developed to remove fine-grained material from inside the well casing and filter pack and to improve hydraulic communication between the well screen and surrounding water-bearing formation. The monitoring wells were developed using a 12-volt submersible pump, which was surged along the entire length of the well screen. Up to 25 casing volumes were removed from each monitoring well over two development events in June and July 2019.

Two initial rounds of groundwater sampling were performed at the Site in August and November 2019.

#### **4.1.4 Soil Gas Probe Installation**

In June 2019, Aspect oversaw the installation of four soil gas probes (GP-01 through GP-04) at the Property. The gas probes were installed by Holt using a direct-push drill rig. The

soil gas probes consisted of 6-inch-long stainless-steel vapor screens and quarter-inch Teflon tubing. GP-01, GP-02, and GP-03 were installed on the south side of the Property, and GP-04 was installed on the west side of the Property. The gas probes were screened from 5 to 5.5 feet bgs, and as-built diagrams are included in Appendix A. In July 2019, Aspect installed two subslab soil vapor pins through the concrete floor slab inside the building on the Property. The vapor pins and soil gas probes were sealed, tested, and sampled in accordance with Appendix E of the RIWP in July 2019 (Aspect, 2019). No evidence of atmospheric dilution was detected in any of the soil gas samples and results are, therefore, considered representative of subsurface conditions.

#### **4.1.5 LNAPL Transmissivity Testing**

Gasoline-range LNAPL occurs in existing monitoring wells MW-3, MW-4, MW-5, and MW-8 (CRA, 2011; Figure 2). LNAPL transmissivity testing began with gauging of the Site monitoring wells where LNAPL was present. A new monitoring well, MW-15 (installed in June 2019), was allowed to equilibrate for nearly two months prior to commencing LNAPL gauging. LNAPL had not been removed from existing monitoring wells for greater than two years prior. Therefore, LNAPL was evacuated from monitoring wells MW-5 and MW-8 in accordance with ASTM International Standard E2856-13 (ASTM, 2018) prior to conducting a transmissivity test.

The initial evacuation was conducted in August 2019; approximately 2 liters of LNAPL was removed from MW-5, and 1 liter of LNAPL was removed from MW-8. After the initial evacuation, only MW-8 recovered to an equilibrium condition, and LNAPL transmissivity testing was started in September 2019. LNAPL thicknesses across the Site began to decrease in late September due to rising groundwater levels, and the LNAPL transmissivity test was suspended in October 2019.

## **4.2 2020 RIWP Addendum Implementation**

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After evaluating the data collected as part of the RIWP implementation in 2019, several data gaps were closed. An RIWP Addendum (Aspect, 2020) was prepared, which documented the results of the 2019 RIWP implementation and identified outstanding data gaps:

1. Extents of soil exceedances to the southeast and northwest
2. Lateral extents of groundwater exceedances in the up-, down-, and crossgradient directions
3. Verify Site soil gas impacts and evaluate potential for vapor intrusion in buildings on neighboring properties
4. Extent of LNAPL downgradient
5. Potential comingling of separate petroleum releases to the Property in groundwater and potential comingling from upgradient releases of petroleum hydrocarbons

The scope of work proposed to address these data gaps is detailed in the RIWP Addendum. The RIWP Addendum implementation commenced in August 2020; all activities were conducted in accordance with the SAP/QAPP for the project (Appendix E of the RIWP; Aspect, 2019).

### **4.2.1 Soil Borings**

In July and August 2020, an additional 13 unique soil borings (B-09 through B-12 and MW-20 through MW-28) were completed as part of the RIWP Addendum implementation by Holt under the supervision of Aspect, using a combination of direct-push and hollow-stem auger drilling methods. Only borings B-09 and B-12 were completed using a direct push drill rig due to the access constraints of drilling inside the existing building. The remaining 11 borings were completed using hollow-stem auger drilling methods and soil samples were collected at 2.5-foot intervals. Additional step out borings were conducted at MW-21 and MW-22 (labeled MW-21A, MW-22A, and MW-22B) due to limited recovery of shallow soil (Appendix A). Soil samples were preserved in accordance with EPA Method 5035A and were field screened using visual, olfactory, water sheen, and volatile headspace (using PID) methods.

At boring locations where field-screening indicated potential petroleum hydrocarbon impacts, up to three soil samples were submitted for laboratory analysis of COPCs. COPCs identified in the RIWP Addendum: TPHg, TPHd, TPHo, BTEX, and naphthalene. One soil sample was submitted for laboratory analysis from the soil-groundwater interface at locations with no field-screening indication of impacts. Soils were logged under the direction of a Washington State licensed geologist in accordance with the Unified Soil Classification System. Soil boring logs are included as Appendix A.

Soil investigation results are presented in Section 4.4.1. More details regarding the rationale and scope of the soil investigations are documented in the RIWP Addendum (Aspect, 2020).

### **4.2.2 Monitoring Well Installation and Groundwater Sampling**

Monitoring wells were installed in 9 of the 13 soil borings and were completed as MW-20 through MW-28 (Figure 2). Monitoring wells were constructed in accordance with WAC 173-160 by Holt, using 2-inch-diameter, Schedule 40 PVC blank casing and 0.010-inch slot well screens. The monitoring wells were screened from 5 to 20 feet bgs at each location, with the exception of MW-28, which was screened from 19 to 34 feet bgs, to accommodate seasonal fluctuations of groundwater. Monitoring wells were completed with appropriate protective seals and secured with locking well caps. The newly installed monitoring wells were surveyed by PLS, Inc. of Issaquah, Washington, for horizontal locations and vertical elevations. As-built diagrams of the monitoring wells are included in the boring logs in Appendix A.

Following installation, each monitoring well was developed to remove fine-grained material from inside the monitoring well casing and filter pack and to improve hydraulic communication between the monitoring well screen and surrounding water-bearing formation. The monitoring wells were developed using a 12-volt submersible pump, which was surged along the entire length of the well screen. Up to 22 casing volumes were removed from each monitoring well over two development events.

Two rounds of groundwater sampling were performed at the Site in August and November 2020.

### 4.2.3 Soil Gas Probe Sampling

To confirm the results of the RIWP soil vapor sampling, another round of soil vapor samples was collected from the four gas probes and two subslab soil vapor pins located inside the building in August 2020. The six locations included SVS-01, SVS-02, and GP-01 through GP-04 were sampled in accordance with the procedures presented in the RIWP (Aspect, 2019) and submitted to Friedman & Bruya, Inc. for analysis of the following:

- BTEX and naphthalene by EPA Method TO-15
- Aliphatic and aromatic hydrocarbons by Massachusetts Department of Environmental Protection Method (MDEP) Method for Air-Phase Hydrocarbons (APH)
- Helium by ASTM D-1946
- Carbon dioxide, methane, and oxygen by EPA Method 3C

In accordance with the RIWP Sampling and Analysis Plan (SAP), the leak testing results indicate the sample results are representative of soil gas concentrations (Aspect, 2019). Soil gas sampling results are presented in Section 4.4.3.

## 4.3 2020 – 2023 Vapor Intrusion Assessments

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Between July 2020 through February 2023, multiple VI assessment events were performed at the Chri-Mar Apartments. Detailed discussion of each sampling event is provided below.

### 4.3.1 July and August 2020 Soil Gas Probe Sampling

The highest calculated TPH<sup>3</sup> concentration occurred at soil gas probe GP-03 during both sampling events in July and August 2020 at concentrations of 18,449 and 15,947 micrograms per cubic meter (ug/m<sup>3</sup>), respectively. The exceedance of the applicable MTCA Method B soil gas screening level (1,500 ug/ m<sup>3</sup>) at GP-03 was outside the lateral extents of soil and groundwater impacts at the Site. The PLPs and Ecology considered two potential reasons for this exceedance: a nearby utility corridor acting as a preferential vapor flow path or a potential secondary source near GP-03.

### 4.3.2 November 2020 Additional Soil Gas Probe Installation

To assess the potential for the utility corridor to act as a preferential flow path, the PLPs and Ecology agreed to install two additional soil gas probes: GP-05 and GP-06 (Figure 2). The two new soil gas probes were installed in November 2020.

### 4.3.3 November 2020 and December 2021 Soil Gas Probe Sampling

The two new soil gas probes (GP-05 and GP-06), along with GP-02 and GP-03, were sampled in November 2020 and December 2021. Soil gas probe GP-05 could not be sampled as the screen was submerged due to the seasonally high groundwater elevation.

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<sup>3</sup> The concentration for TPH was calculated as the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gas-range VOCs in accordance with Ecology guidance (2022). For analytes which were not detected, one-half the reporting limit was used in the TPH calculation.

The four locations were sampled in accordance with the procedures presented in the RIWP (Aspect, 2019) and submitted to Friedman & Bruya, Inc. for analysis of the following:

- BTEX and naphthalene by EPA Method TO-15
- Aliphatic and aromatic hydrocarbons by MDEP Method APH
- Helium by ASTM D-1946
- Carbon dioxide, methane, and oxygen by EPA Method 3C

In accordance with the RIWP SAP, the leak testing results indicate the sample results are representative of soil gas concentrations (Aspect, 2019). Soil gas sampling results are presented in Section 4.4.3.

#### **4.3.4 July 2021 Chri-Mar Apartments Crawlspace Air Sampling**

Based on the results of the November 2020 soil gas sampling event, the extent of soil gas remained undefined. To address the soil gas extents data gap, Aspect performed a Tier II assessment per Ecology guidance to further evaluate the potential for vapor intrusion in the Chri-Mar Apartments building. These results were reported to Ecology in the Vapor Intrusion Assessment Results and Recommendations Memorandum, dated October 14, 2021 (Aspect, 2021c), and summarized below. The soil gas sampling results are presented in Section 4.4.3.

##### **4.3.4.1 Building Reconnaissance**

A reconnaissance of the Chri-Mar Apartments building was performed in June 2021 to assess building characteristics such as the foundation construction, presence of a crawlspace, potential preferential flow paths from utility corridors, and heating/cooling systems.

Subslab soil gas sampling was not feasible because of the building construction design (i.e., there was no slab on grade). Therefore, crawlspace air sampling underneath the Chri-Mar Apartments building was performed in lieu of subslab soil gas sampling.

##### **4.3.4.2 Crawlspace Air and Soil Gas Sampling Methodology**

In July 2021, crawlspace air samples were collected in the center of the Chri-Mar Apartments building at two locations, IA-1 and IA-2, Figure 06. These locations underneath the building were chosen relative to the soil gas probe locations at the Property line where soil gas concentrations had historically exceeded the MTCA Method B subslab soil gas screening levels.

The intake for the Teflon-coated sample tubing was placed near the center of the Chri-Mar Apartments building and routed to each sample canister, which was staged outside the crawlspace. In addition, an ambient background air sample was collected upwind of the crawlspace, to the northwest side of the Chri-Mar Apartments building (BA-1; Figure 06).

Time-integrated samples were collected over the course of a day using 6-liter (L) canisters prepared under negative pressure and lab-certified clean for volatile organic compounds (VOCs). The canisters were equipped with dedicated flow regulators set at a

fill rate set for an approximate 8-hour sampling event. Sampling concluded when each canister reached a final vacuum of 5 inches of mercury. During the sampling period, the barometric pressure fell from approximately 30.17 inches of mercury to 30.10 inches of mercury. Wind was light and varied in direction from northeast to northwest.

Soil gas samples were collected from gas probes near the property line (GP-02, GP-03, GP-05, and GP-06) concurrently with crawlspace air sampling.

#### **4.3.5 December 2021 Through February 2023 Vapor Intrusion Assessment**

Based on the results of July 2021 crawlspace air sampling, additional investigation of the potential vapor intrusion exposure pathway within residential spaces in the Chri-Mar Apartments building was required to complete the Tier II vapor intrusion assessment. The following section details the Tier II vapor intrusion assessment, consisting of sampling events in December 2021, November 2022, January 2023, and February 2023. The approach and scope of work was detailed in the Vapor Intrusion Assessment Results and Recommendations Memorandum (VIARRM, Aspect, 2021c) and the sampling results are presented in Section 4.4.3. All sample locations from the vapor intrusion sampling events are shown on Figure 7.

Crawlspace air samples beneath each unit were obtained concurrently with indoor air samples, except for Unit #131 during the December 2021 sampling event. While placing tubing for the crawlspace air samples during the December 2021 sampling event, multiple raccoons were observed in the crawlspace, and tubing could not be placed at the final location due to health and safety concerns regarding the presence of wildlife in the crawlspace. For all other events, the crawlspace air samples collected beneath Units #125, #127, #129, and #131 the tubing intake was placed at approximately the mid-height of the crawlspace, and the tubing intake was placed where the plumbing penetrations entered the bathroom for each of the three units.

The tubing intake for each ambient air sample was set an approximate height of 6 feet above the ground surface. Two ambient air samples were collected during each sampling event:

- AMB-1 was collected on the north side of the Chri-Mar Apartments building; and
- AMB-2 was collected to the southwest of the Chri-Mar Apartments building.

Prior to deploying indoor air sampling equipment in each unit, the common household cleaners observed during the building reconnaissance visit were placed into a tote and removed from the building. It was noted that the tenants of Unit #131 actively smoke tobacco products within the unit.

In Units #125, #127, and #129, two indoor air samples were collected— one in the living area as the commonly occupied space of each unit and one in each bathroom to assess any potential preferential pathways resulting from the configuration of the bathroom exhaust fans. In Unit #131, where no ground floor bathroom is present, a second sample was collected in the living area as a field duplicate.

#### 4.3.5.1 Building Reconnaissance

Aspect conducted additional reconnaissance on December 1, 2021, and July 20, 2022. During the building reconnaissance visit, Aspect entered each of the four ground-floor residential units<sup>4</sup> in the Chri-Mar Apartments. Common household cleaners were observed in each of the residential units, and it was noted that the tenants in Unit #131 actively smoke tobacco products within the unit. The ground level floorplan is shown on Figure 6. General building characteristics and unit-specific characteristics are described in detail in the Vapor Intrusion Assessment Report (Aspect, 2022a).

#### 4.3.5.2 Ambient, Crawlspace, and Indoor Air Sampling

For all events ambient, crawlspace, and indoor air samples were collected over a time-integrated 24-hour period. Air samples were collected using 6-L cannisters prepared under negative pressure and lab-certified clean for VOCs. The cannisters were equipped with dedicated flow regulators set at a fill rate set for an approximate 24-hour sampling event. During the sampling period, the vacuum in the cannister was monitored to ensure that the flow regulator was functioning properly.

##### December 2021

Ambient air, crawlspace, and indoor air samples were collected concurrently over a time-integrated 24-hour period on December 15<sup>th</sup> and 16<sup>th</sup>, 2021. The vacuum in each cannister prior to commencement of the sampling event varied between 28 to greater than 30 inches of mercury. During the sampling period, the vacuum in the cannister was monitored to ensure that the flow regulator was functioning properly. The final vacuum at the end of sampling varied between 6 and 9.5 inches of mercury in each canister and is considered acceptable.

During the sampling period, the barometric pressure, as measured onsite using a GEM-5000 multi-gas meter, increased from 29.24 inches of mercury to 29.32 inches of mercury. Based on weather data from a local meteorological station, the outside temperature varied between 37 and 43 degrees Fahrenheit and relative humidity varied between 66 and 92 percent. The wind speed was calm with a speed between 5 and 10 miles per hour, and wind direction varied from north-northeast to east.

##### November 2022

A second indoor air sampling event was conducted to assess potential seasonality and variability of the December 2021 VI assessment results (Aspect, 2022a). The second event was postponed in summer 2022 due to extreme heat and the building units opening windows and having fans on, thus creating abnormal building ventilation conditions (Aspect, 2022b). The second event was conducted in November 2022 once the IA remedial excavation on the Property was complete.

Ambient, crawlspace, and indoor air samples were collected over a time-integrated 24-hour period on November 16 and November 17, 2022. The initial vacuum in each cannister

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<sup>4</sup> The units are referred to by their addresses, which from west to east are Units #125, #127, #129, and #131.

varied between 29 to greater than 30 inches of mercury. The final vacuum varied between 2 and 8 inches of mercury, which is considered acceptable.

During the sampling period, the barometric pressure, as measured onsite using a GEM-5000 multigas meter, decreased from 30.56 inches of mercury to 30.48 inches of mercury. Based on weather data from a local meteorological station, the outside temperature varied between 36 and 48 degrees and relative humidity varied between 50 and 100 percent. The wind was calm with a wind speed between 0 and 11.5 miles per hour and wind direction which varied from north-northeast to east.

### **January 2023**

The results of the November 2022 sampling event indicated that there were indoor air exceedances (discussed in Section 4.4.3), which was communicated to Ecology on December 13, 2022 (Myers, 2022). Ecology recommended that an active ventilation system be installed in the crawlspace of the building because of the uncertainty associated with the recent results and the concentrations of TPH measured in the crawlspace. A pre-ventilation installation sampling event was conducted in January 2023. Ambient, crawlspace, and indoor air samples were collected over a time-integrated 24-hour period beginning on January 9, 2023, and ending on January 10, 2023. The vacuum in each cannister prior to commencement of the sampling event was noted and varied between 28 to greater than 30 inches of mercury. The final vacuum at the end of sampling varied between 2 and 8 inches of mercury in each canister.

During the sampling period, the barometric pressure increased from 28.94 inches of mercury to 29.18 inches of mercury. Based on weather data from a local meteorological station, the outside temperature varied between 41 and 54 degrees Fahrenheit and relative humidity varied between 52 and 78 percent. The wind was calm with a speed between 2 and 12 miles per hour, and wind direction varied from east to north.

### **February 2022**

After the January 2023 sampling event, a crawlspace ventilation system was installed, and active crawlspace ventilation commenced in accordance with the Ecology-approved Ventilation Work Plan (Aspect, 2023a). A post-ventilation installation sampling event was conducted on February 22, 2023, approximately a month after the crawlspace ventilation system was started. Ambient, crawlspace, and indoor air samples were collected over a time-integrated 24-hour period beginning on February 22, 2023, and ending on February 23, 2023.

The vacuum in each cannister prior to commencement of the sampling event was noted and varied between 28 to greater than 30 inches of mercury. The final vacuum at the end of sampling varied between 3 and 9 inches of mercury in each canister.

During the sampling period, the barometric pressure increased from 29.80 inches of mercury to 29.02 inches of mercury. Based on weather data from a local meteorological station, the outside temperature varied between 28 and 37 degrees Fahrenheit and relative humidity varied between 45 and 84 percent. The wind was calm with a speed between 6 and 12 miles per hour, and wind direction varied from north to east.

## 4.4 Remedial Investigation Results

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A comprehensive review of sampling and analytical results is provided below. In addition, the Site geology and hydrogeology is presented as an important basis of interpreting the RI results. Laboratory analytical reports for data collected by Aspect are provided in Appendix C.

### 4.4.1 Soil Results

This section presents the interpretation of the Site geology, soil analytical results, and the extents of Site soil contamination. The COPCs detected above the MTCA Method A cleanup levels in soil are TPHg, TPHd, TPHo, BTEX, and naphthalene.

#### 4.4.1.1 Geologic Interpretation

The subsurface explorations conducted at the Site as part of the AO RI in 2019 and 2020 confirmed the geologic conditions presented in historical environmental reports. At the Site, subsurface soil generally consists of imported fill soil to approximately 4 to 10 feet bgs overlying a weathered glacial till deposit unit (Vashon till), which is consistent with the mapped geologic unit of the area (USGS, 1983). Within a few feet of the fill-till interface, the till gradually transitions to unweathered till. The density of the till was consistent across the Site, ranging from medium dense at the fill-till interface and increasing in density to very dense within a few feet below the interface. The underlying unweathered till is differentiated from the weathered till based on the blow counts and inferred density during drilling. Boring logs from the RI conducted by Aspect are included as Appendix A.

#### 4.4.1.2 Soil Analytical Results

As part of the AO RI, a total of 52 unique soil samples (not including quality control samples) were submitted to Friedman & Bruya, Inc., a state-certified laboratory, for chemical analysis of the following COPCs:

- TPHg by Ecology Method NWTPH-Gx
- TPHd and TPHo by Ecology Method NWTPH-Dx
- BTEX and naphthalene by EPA Method 8260C

In addition, select soil samples were analyzed for the following Site COPCs:

- 8 of the 52 samples were analyzed for EDB, EDC, and MTBE by EPA Method 8260C.
- 4 of the 52 samples were analyzed for lead by EPA Method 6010C at locations where TPHg concentrations were elevated.

A limited number of soil samples were submitted for analysis of chlorinated solvents (which are not Site COPCs) to assess the potential for comingling with releases from other Sites on neighboring properties.

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- 6 of the 52 samples were analyzed for chlorinated volatile organic compounds (cVOCs) by EPA Method 8260C from locations along the western Property boundary.

Soil analytical results, including the historical results of investigations conducted by others, are summarized in Table 1 and presented on Figures 3 and 4. Based on the analytical data, TPHg, TPHd, TPHo, BTEX, and naphthalene were detected above their respective MTCA Method A cleanup levels, and these analytes comprise the contaminants of concern (COCs) in soil at the Site. Table B below summarizes the locations and depths that contained one or more COCs at concentrations greater than their respective MTCA Method A cleanup level. Cumulative soil analytical results are included in Table 1 and shown on Figure 3.

**Table B. Soil Exceedances of MTCA Method A Cleanup Levels**

<b>Historical Results</b>		
<b>Location</b>	<b>Depth(s) – feet bgs</b>	<b>COC(s)</b>
SB	1.33	TPHo
SB1	12.5	TPHg, BTEX
SB1-CAM	7.5	Benzene
	12.5	Benzene
	15	TPHg, BTEX
SB-2	15	TPHg, BTEX
MW-1	17.5	Benzene
	27.5	Benzene
MW-2	17.5	Benzene
MW-3	7.5	TPHg, BTEX, naphthalene
	17.5	Benzene
MW-4	7.5	TPHg, BTEX
	17.5	Benzene
MW-5	7.5	TPHg, BTEX, naphthalene
	17.5	Benzene
MW-6	20	Benzene
MW-8	15	TPHg, BTEX
	20	Benzene
MW-9	10	Benzene
	20	Benzene
MW-10	5	Benzene
	20	Benzene
<b>AO RI Results</b>		
<b>Location</b>	<b>Depth(s) – feet bgs</b>	<b>COC(s)</b>
B-07	8	TPHg
MW-11	1	TPHg, Xylenes
	6	TPHg, benzene, ethylbenzene, xylenes, and naphthalene
MW-15	10.5	TPHg, naphthalene
	13	TPHg, benzene, ethylbenzene, and xylenes
	17.5	TPHg, benzene
MW-22	16	Benzene
MW-23	18	Benzene
	25	Benzene

The remaining soil borings did not contain concentrations of Site COPCs above their respective MTCA Method A cleanup levels. In addition, no cVOCs were detected in soil from borings along the western Property boundary (B-08, GP-04, MW-12, MW-13, MW-14, MW-18, and MW-19; Table 1) and closest to the former dry cleaner (see Section 2.2.3), which eliminated the potential comingling of a separate release from a neighboring property. Laboratory analytical reports are included as Appendix C. Data validation reports are included as Appendix D.

#### **4.4.2 Groundwater Results**

This section presents the current interpretation of the Site hydrogeology, groundwater analytical results, and current extents of contamination in Site groundwater. Historical groundwater analytical results from investigations conducted by others are included as Table 2. The COPCs detected above the MTCA Method A cleanup levels in groundwater include TPHg, TPHd, TPHo, BTEX, and naphthalene.

##### **4.4.2.1 Groundwater Elevations, Flow Direction, and Gradient**

Groundwater is encountered at the interface of the imported fill and Vashon till (Figure 4). Groundwater was gauged at depths ranging between approximately 7 and 16 feet bgs, corresponding to elevations of 431 to 442 feet (NAVD88) during the four monitoring events performed from August 2019 to November 2020 (Table 3). For the monitoring wells that were gauged over these four events (MW-1 to MW-19), groundwater elevations within each well varied an average of 1.62 feet, with a minimum variation of 0.66 feet at MW-6 and a maximum variation of 2.38 feet at MW-9. During each event, the groundwater flow direction was to the southwest at an average horizontal hydraulic gradient of 0.05 foot/foot.

##### **4.4.2.2 Groundwater Analytical Results**

During three of the four groundwater sampling events in July 2019, November 2019, and November 2020, LNAPL was present in monitoring wells MW-3, MW-4, MW-5, MW-8, and MW-15, and these monitoring wells were therefore not sampled. In August 2020, LNAPL was present in monitoring wells MW-3, MW-5, and MW-15, but no LNAPL was measured at MW-4 or MW-8, and groundwater samples were collected from MW-4 and MW-8. Groundwater samples were submitted to Friedman & Bruya, Inc. and analyzed for the following COPCs:

- TPHg by Ecology Method NWTPH-Gx
- TPHd and TPHo by Ecology Method NWTPH-Dx
- Naphthalene by EPA Method 8260C
- BTEX, EDB, EDC, and MTBE by EPA Method 8260C (August and November 2019 only)
- Total lead by EPA Method 6010C (August and November 2019 only)

In addition, samples from monitoring wells MW-13, MW-14, MW-18, and MW-19 located closest to the former dry cleaner operation were analyzed for cVOCs by EPA Method 8260C to assess potential comingling of a release from a neighboring property.

Laboratory analytical reports are included as Appendix C; data validation reports are included in Appendix D.

Historical groundwater analytical results are summarized in Table 2, and groundwater analytical results from the AO RI are summarized in Table 4. Analytical results from the August 2020 and November 2020 events are presented on Figure 5.

Based on the analytical data, TPHg, TPHd, TPHo, BTEX, and naphthalene were detected above their respective MTCA Method A cleanup levels and were retained as Site COCs for groundwater. The following locations contained one or more COCs at concentrations greater than the respective MTCA Method A cleanup levels (Table 4, Figure 5): MW-1, MW-2, MW-4, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14, MW-17, MW-18, MW-21, MW-22, and MW-23.

#### **4.4.3 Vapor Intrusion Assessment Results**

As part of the Tier II vapor intrusion evaluations in July 2021, December 2021, November 2022, January 2023, and February 2023 analytical results for air (both crawlspace and indoor air) were adjusted for background conditions in accordance with Ecology guidance (Ecology, 2022) and compared to the generic MTCA Method B indoor air cleanup level for TPH<sup>5</sup>.

At the time of the 2019 RIWP implementation and 2020 RIWP Addendum implementation, investigations were conducted under Ecology's current guidance at the time detailed in Implementation Memorandum Nos. 14 and 18 (Ecology, 2016 and 2018). These guidance documents have been revised and are now included in the comprehensive guidance for vapor intrusion assessment (Ecology, 2022). The discussion below compares all results to the most recent guidance (Ecology, 2022) and MTCA Method B subslab soil gas screening levels and indoor air cleanup levels.

The COPCs detected above the MTCA Method B subslab soil gas screening levels in soil gas include TPH and benzene, which represents a potential vapor intrusion risk to indoor air quality (as discussed further below, the possibility of potential background concentrations from non-vapor intrusion sources influencing indoor air is discussed further in Section 4.4.3.6 below).

As discussed in Section 4.7 of Ecology's vapor intrusion guidance (Ecology, 2022), the measured air concentrations were adjusted by subtracting the VOC concentrations in ambient air. These adjusted indoor air results represent a more accurate potential contribution of vapor intrusion to VOC concentrations in indoor air. Crawlspace air results

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<sup>5</sup> The concentration for TPH was calculated as the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gas-range VOCs in accordance with Ecology guidance (2022). For soil gas samples and ambient air samples where the aliphatic or aromatic hydrocarbons were not detected, the TPH concentration was summed using one-half the reporting limit for individual compounds. For crawlspace and indoor air samples, if an individual compound was not detected in either the crawlspace or indoor sample and also not detected in the associated ambient sample, the TPH concentration was summed using zero for non-detected individual compounds.

were also adjusted by subtracting the ambient background air concentrations. The adjusted indoor air and crawlspace air results are used for evaluation in this section.

The COPCs detected in indoor air above their respective MTCA Method B cleanup levels are TPH, benzene, and naphthalene.

#### **4.4.3.1 July 2019 through December 2021 Soil Gas Results**

Soil gas sampling was conducted over five events throughout the AO RI at various probes and subslab locations on the Property in July 2019, August 2020, November 2020, July 2021, and December 2021. A total of 23 soil gas samples (not including quality control samples) were collected and submitted to Friedman & Bruya, Inc. for analysis of the following:

- BTEX and naphthalene by EPA Method TO-15
- Aliphatic and aromatic hydrocarbons by MDEP Method APH

Samples collected during the July 2019 event were also analyzed for EDB, EDC, and MTBE by EPA Method TO-15. EDB, EDC, and MTBE were not detected in soil gas, and therefore eliminated as Site COPCs and not analyzed in subsequent events.

Soil gas sampling results are summarized in Table 5. Individual analytes, including carcinogenic compounds, were not detected above their respective MTCA Method B subslab screening levels with the exception of benzene (Table 5). The calculated TPH concentration exceeded the generic MTCA Method B subslab screening level at select locations as summarized in Table C below.

**Table C. Soil Gas Exceedances of the MTCA Method B Subslab Soil Gas Screening Levels**

Location		Date	COC(s)
GP-01	Soil gas probe	July 2019	TPH
GP-02	Soil gas probe	July 2019	TPH
		August 2020	TPH
		July 2021	TPH, Benzene
GP-03	Soil gas probe	July 2019	TPH
		August 2020	TPH
		November 2020	TPH
		July 2021	TPH
		December 2021	TPH
GP-04	Soil gas probe	July 2019	TPH
GP-05	Soil gas probe	November 2020	TPH
		July 2021	TPH, Benzene
GP-06	Soil gas probe	July 2021	TPH
SVS-01	Subslab soil vapor pin	July 2019	TPH
		August 2020	TPH, Benzene
SVS-02	Subslab soil vapor pin	July 2019	TPH
		August 2020	TPH

Laboratory analytical reports are included as Appendix C, and data validation reports are included in Appendix D.

#### 4.4.3.2 July 2021 Ambient and Crawlspace Air Analytical Results

The July 2021 sampling results are summarized in Table 6 for crawlspace air. Results were compared against the MTCA Method B cleanup levels for indoor air for unrestricted use. Adjusted crawlspace air samples had benzene, naphthalene, and TPH concentrations above the MTCA Method B indoor air cleanup level for unrestricted use at the IA-1 location. This IA-1 location is in the eastern portion of the Chri-Mar Apartments building crawlspace and closer to soil gas probes GP-03 and GP-05, where the highest concentrations of TPH were historically detected.

#### 4.4.3.3 December 2021 through February 2023 Ambient Air Analytical Results

Ambient air sampling was conducted over four events throughout the RI at two locations north and southwest of the Chri-Mar Apartments building as shown on Figure 7. To the north and upwind of the Chri-Mar Apartments building at location AMB-1, benzene was detected at concentrations ranging from 0.37 to 0.70  $\mu\text{g}/\text{m}^3$ , exceeding the MTCA Method B indoor air cleanup level of 0.32  $\mu\text{g}/\text{m}^3$  during all four events. Benzene was detected at similar concentrations in the down/crosswind ambient air sample during all four events. Naphthalene was also detected at concentrations below the MTCA Method B indoor air cleanup level of 0.074  $\mu\text{g}/\text{m}^3$  in AMB-1 during the December 2021 and November 2022 events.

The C5-C8 aliphatic hydrocarbon range was detected in both the ambient air samples during the January 2023 and February 2023 events. C9 – C12 aliphatic, and C9-10 aromatic air-phase hydrocarbons were not detected in either of the ambient air samples during any of the sampling events. It is noteworthy that summing the non-detected analytes at one-half the reporting limit results in TPH concentration ranging 3 up to 26 times greater than the generic MTCA Method B indoor air cleanup level for TPH. Ambient, crawlspace, and indoor air results are tabulated in Table 7 through Table 10; the laboratory report is included as Appendix C. Ambient, crawlspace, and indoor air sampling locations are shown on Figure 7.

#### **4.4.3.4 December 2021 through February 2023 Crawlspace Air Analytical Results**

Crawlspace results suggest that concentrations fluctuations appear to match ambient air concentration variation. The crawlspace is vented allowing ambient air exchange with the crawlspace air beneath the building. Analytical results are summarized by crawlspace location under each unit below.

##### ***Unit #125***

In the crawlspace under Unit #125, the adjusted concentration of benzene exceeded the MTCA Method B indoor air cleanup level during the January 2023 event. The adjusted calculated total TPH concentrations exceeded the generic MTCA Method B indoor air cleanup level during the November 2022, January 2023, and February 2023 sampling events.

##### ***Unit #127***

In the crawlspace under Unit #127, the adjusted concentration of benzene exceeded the MTCA Method B indoor air cleanup level during the January 2023 event. The adjusted calculated total TPH concentration exceeded the generic MTCA Method B indoor air cleanup level during the November 2022 and January 2023 sampling events.

##### ***Unit #129***

In the crawlspace under Unit #129, the adjusted concentration of benzene was less than the MTCA Method B indoor air cleanup level during all four sampling events. Naphthalene was also detected at concentrations less than the MTCA Method B indoor air cleanup level during three of the events. The adjusted calculated total TPH concentration exceeded the generic MTCA Method B indoor air cleanup level during the November 2022 sampling event.

##### ***Unit #131***

In the crawlspace under Unit #131, the adjusted concentrations of benzene, total xylenes, and naphthalene exceeded the MTCA Method B indoor air cleanup level during the January 2023 event. The adjusted total TPH concentration exceeded the generic MTCA Method B indoor air cleanup level during the November 2022 and January 2023 sampling events.

#### 4.4.3.5 December 2021 through February 2023 Indoor Air Analytical Results

Indoor air concentrations were adjusted by subtracting the VOC concentration in ambient air (Ecology, 2022). Analytical results are summarized by residential unit below.

##### *Unit #125*

In Unit #125, the concentration of naphthalene in the adjusted indoor air results exceeded the MTCA Method B indoor air cleanup level in the bathroom during three of the four events, and in the living room during one of the four events. However, the concentrations of naphthalene detected in indoor air were orders of magnitude greater than the concentrations detected in in the same crawlspace sampling events. This indicates that the concentration of naphthalene detected in indoor air is not due to vapor intrusion, but rather a background source from within the unit.

The calculated total TPH concentration exceeded the generic MTCA Method B indoor air cleanup level in three of the four sampling events in both the living room and bathroom samples. In two of those events the indoor air total TPH concentrations were greater than the crawlspace total TPH concentrations, further supporting a potential background source from within the unit.

##### *Unit #127*

In Unit #127, the concentration of naphthalene in the adjusted indoor air result was greater than MTCA Method B indoor air cleanup level in the living room during the February 2023 event and in the bathroom during the December 2021 event. However, the concentration of naphthalene during both events was greater in the indoor air samples than the concentrations of naphthalene in the respective crawlspace samples. This indicates that the concentration of naphthalene detected in indoor air is not due to vapor intrusion, but rather a background source from within the unit.

In Unit #127, the adjusted calculated total TPH concentrations only exceeded the generic MTCA Method B indoor air cleanup level in the bathroom during the January 2023 event. During this event, the measured air-phase hydrocarbon fraction concentrations were different in crawlspace and indoor air results, indicating the TPH concentrations in indoor air are not due to vapor intrusion.

##### *Unit #129*

In Unit #129, the concentrations of naphthalene in the adjusted indoor air results were greater than the MTCA Method B indoor air cleanup level in both the living room and bathroom locations during the December 2021 event and in only the living room during the November 2022 and February 2023 events (Table 7 through 10). Similar to the previous Units #125 and #127, the concentration of naphthalene at both locations were greater than the concentrations detected in the crawlspace for their respective events. This indicates that the concentration of naphthalene detected in indoor air is not due to vapor intrusion, but rather a background source from within the unit.

In Unit #129 the adjusted calculated total TPH concentrations in both living room and bathroom samples exceeded the generic MTCA Method B indoor air cleanup level for

three of the four events and exceeds the MTCA Method B indoor air cleanup level in the living room sample during the January 2023 event. However, the adjusted calculated total TPH concentration in crawlspace air only exceeded the generic cleanup levels during the November 2022 sampling event and in the other three events was orders of magnitude less than the two indoor air samples from Unit #129. These results indicate that exceedances of TPH in indoor air are not the result of vapor intrusion, but rather a background source from within the unit.

During the January 2023 event, the measured air-phase hydrocarbon fraction concentrations were different in crawlspace and indoor air results, indicating the TPH concentrations in indoor air are not due to vapor intrusion.

#### ***Unit #131***

In Unit #131, the concentration of naphthalene in the adjusted indoor air results was greater than MTCA Method B indoor air cleanup level in the living room during all four events. Indoor air concentrations of naphthalene were an order of magnitude greater than the concentrations detected in the crawlspace in all but the November 2022 sampling event<sup>6</sup>.

Benzene was detected at a concentration greater than the MTCA Method B indoor air cleanup level in the living room during three of the four events. Similar to naphthalene, these concentrations were an order of magnitude higher than the respective crawlspace air results in three of the four sampling events. This indicates that the concentration of naphthalene and benzene detected in indoor air is not due to vapor intrusion, but rather background source from within the unit. It was noted during the building reconnaissance that the current tenants actively smoke inside Unit #131.

The adjusted calculated total TPH concentrations in indoor air exceeded the generic MTCA Method B indoor air cleanup level during three of the four sampling events. However, during two of these events the indoor air TPH concentrations were orders of magnitude greater than the crawlspace TPH concentrations. During the January 2023 event, the adjusted calculated total TPH concentrations were greater in the crawlspace sample than the corresponding indoor air sample and the indoor air total TPH concentration was below the cleanup level. These results indicate that generic cleanup level exceedances of TPH in indoor air are not the result of vapor intrusion but rather a background source from within the unit.

#### **4.4.3.6 Vapor Intrusion Assessment Summary**

The vapor intrusion assessment results indicate that on average the naphthalene and total TPH concentrations detected in the indoor air samples are greater than the naphthalene and total TPH concentrations detected in the crawlspace samples. It is noteworthy that summing the non-detected analytes at one-half the reporting limit results in TPH

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<sup>6</sup> Due to health and safety concerns, a crawlspace air sample was not collected from directly beneath Unit #131 during the December 2021 sampling event. Given the open-air exchange of the crawlspace, an average of the other crawlspace air results was used to evaluate the potential contribution of vapor intrusion from the crawlspace to indoor air.

concentration ranging 3 up to 26 times greater than the generic MTCA Method B indoor air cleanup level for TPH.

Benzene concentrations detected in Unit #131 were also greater than the benzene concentrations detected in the respective crawlspace samples. Benzene was either not detected or detected below cleanup levels in indoor air in the other units. Based on a comparison of the multiple lines of evidence presented for each sampling event to date, background sources from within the units are likely contributing to indoor air exceedances.

Ecology guidance acknowledges there can be a wide variety of sources which contribute to measured concentrations of analytes in indoor air (Ecology, 2021; NJDEP, 2021). These background sources can include common household products such as cleaners, paint products, byproducts from smoking, and recently manufactured materials.

#### **4.4.4 Quality Assurance/Quality Control**

Data presented in this report meet data quality objectives in accordance with MTCA requirements (WAC 173-340-350). Sample collection, handling, and chain-of-custody protocols were followed to achieve representative data for a given matrix, in accordance with the SAP/QAPP for the project (Appendix E of the RIWP; Aspect, 2019). Chemical analyses of the samples were conducted by a laboratory accredited by Ecology using MTCA-required analytical methods (NWTPH methods for petroleum mixtures, and SW-846, MDEP, or EPA Standard Methods for other analytes). Those analytical methods, in conjunction with Contract Laboratory Program (CLP), specify quality control (QC) procedures (lab method blanks, spikes, internal standards, etc.) to ensure the analytical results are of known quality and acceptable to achieve project objectives.

The laboratory conducted an internal quality assurance (QA) review of the generated results, and qualified results to identify QC concerns in accordance with their standard operating procedures for each analytical method. The laboratory also defined additional data qualifiers to explain QC concerns more completely regarding particular sample results when necessary, such as when a sample was diluted prior to analysis or if a sample chromatograph pattern did not resemble the fuel standard used for quantitation.

Upon receipt of the data, Aspect submitted all analytical data reports to Laboratory Data Consultants, LLC (LDC) for third party data validation as required by the AO. Qualifiers were assigned to results as applicable based on laboratory flagging and report notes. Laboratory results were loaded and managed in a controlled database environment, with assorted data entry quality control procedures to ensure data integrity and consistency. The LDC data validation reports are included as Appendix D.

All laboratory analytical data generated as part of the AO RI has been uploaded to Ecology's Environmental Information Management (EIM) database, as required by the AO.

## 5 Conceptual Site Model

This section identifies the Site COCs, nature and extent of contamination, discusses contaminant fate and transport, and presents an exposure pathway assessment for potential receptors.

### 5.1 Contaminants of Concern and Affected Media

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The COCs retained for the Site are based on the occurrence of analytes identified above soil and groundwater MTCA Method A cleanup levels, subslab soil gas MTCA Method B screening levels, or indoor air MTCA Method B cleanup levels. The affected media at the Site include soil, groundwater, and soil gas. COCs have been detected in indoor air at the site, but are likely present due to background sources. The COCs for this Site by media are as follows:

- TPHg, TPHo, TPHd, BTEX, and naphthalene in soil and groundwater
- TPH, benzene, and naphthalene in soil gas, and potentially indoor air

The other COPCs typically associated with petroleum hydrocarbon releases were not detected in soil, groundwater, soil gas, or indoor air above their respective MTCA cleanup or screening levels. The following COPCs were eliminated for the Site:

- Lead was detected in soil but at concentrations below the Method A CUL and statewide background concentrations (Ecology, 1994). Lead was also detected below the MTCA Method A cleanup level in two groundwater monitoring wells (MW-11 and MW-16) and otherwise was not detected above the laboratory detection limits in the remaining groundwater samples or monitoring wells.
- EDB, EDC, and MTBE were not detected in soil, groundwater, or soil gas at the Site.
- PCBs were detected in soil at MW-3 at a concentration an order of magnitude below the MTCA Method A cleanup level. PCBs were not detected in any other soil at the Site.
- cPAHs were not detected in soil at the Site.
- In addition, no cVOCs were detected in soil or groundwater and were therefore not retained as Site COCs.

### 5.2 Nature and Extent of Contamination

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This section describes the nature and extent of contamination at the Site based on the investigation results.

#### 5.2.1 Soil Impacts

Soil characterization results indicate that soil impacts have been delineated laterally and vertically at the Site. The lateral extents of soil impacts exceeding MTCA Method A cleanup levels are inferred to extend into the public right-of-way of 196<sup>th</sup> Street Southwest and the property to the west, as illustrated on Figure 3.

The RI soil analytical results have vertically delineated cleanup level exceedances at depths of 16 to 25 feet bgs in areas where LNAPL is present (MW-15 and MW-22, Figures 3 and 4). At locations B-07 and MW-11 outside the LNAPL footprint, cleanup level exceedances were vertically delineated at depths less than 8 feet bgs.

Soil was not vertically delineated at locations MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, and MW-23. At these locations, only benzene exceeded the MTCA Method A cleanup level in each of the deepest analytical results from each boring. Table D below shows the maximum depth where analytical data was acquired for each of these locations; all soil analytical results are available in the attached Table 1.

**Table D. Locations Lacking Vertical Delineation**

Location	Depth (feet bgs)	Benzene Soil Concentration (milligrams per kilogram [mg/kg])
MW-1	27.5	0.14
MW-2	17.5	0.33
MW-3	17.5	0.53
MW-4	17.5	0.24
MW-5	17.5	0.09
MW-6	20	0.0921
MW-8	20	0.0486
MW-9	20	0.104
MW-10	20	0.0532
MW-23	25	0.047

Based on observed geology, groundwater flow is not expected to be significant in the very dense, unweathered glacial till from which these samples were collected. These exceedances may be due to drag down of shallower LNAPL and/or higher-concentration soils and groundwater during drilling. The vertical extent of soil impacts in the source area and downgradient is shown on Cross Section A-A', Figure 4.

Further discussion of these deeper benzene exceedances in soil is included as part of the exposure pathway assessment in Section 5.3 below.

## 5.2.2 Groundwater Impacts

Groundwater at the Site occurs in an unconfined aquifer, which is potentially perched above an unsaturated zone. Thirty-two monitoring wells have been monitored as part of the Site investigation: 28 were installed as part of the Site investigation (MW-1 through MW-28) and four wells were installed on the south-adjacent property by others (CMW-1 through CMW-4) as shown on Figure 2. Of these 32 monitoring wells, 29 of them are screened in and/or across the interface between the fill soil, weathered till, and unweathered till, and these 29 monitoring wells contained sufficient groundwater for sampling. Three of the monitoring wells (MW-28, CMW-2, and CMW-3) are screened exclusively within the unweathered till and have remained dry since installation. These observations indicate that the very dense, unweathered till precludes groundwater flow, and that impacts to groundwater are limited vertically to the unconfined, surficial aquifer.

Laterally, the groundwater plume has been delineated in all directions except upgradient to the north, potentially due to comingling from the north-adjacent site (Figure 5). At least 55 years have passed since the last gasoline-based operation at the Property. In that time, LNAPL has migrated only approximately 90 feet downgradient to the southwest, indicating that groundwater flow in the unconfined, surficial aquifer is extremely limited. Likewise, the dissolved-phase groundwater plume has shown very limited migration both downgradient and crossgradient of the LNAPL plume, further supporting that limited groundwater flow occurs at the Site.

In groundwater, TPHd and TPHo were detected at concentrations exceeding the MTCA Method A cleanup levels. Generally, reported concentrations of TPHd were an order of magnitude less than TPHg concentrations, and concentrations of TPHo were an order of magnitude less than TPHd. At MW-11, which is upgradient of the former waste and new oil USTs, TPHo was detected in groundwater.

The nature and extent of groundwater contamination at the Site have been fully characterized.

### 5.2.3 Soil Gas Impacts

Given the nature and extent of soil and groundwater impacts and the vapor intrusion assessment, the Chri-Mar Apartments building is the only occupied structure within the prescribed lateral and vertical screening distances for potential impacts to air quality at the Site. Based on the results of the subsequent Tier II vapor assessment conducted between December 2021 and February 2023 described in Section 4.4.3, subsurface petroleum impacts at the Site are likely not influencing indoor air quality within the Chri-Mar Apartments via the vapor intrusion exposure pathway.

## 5.3 Exposure Pathway Assessment

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The potential exposure pathways that may affect human health include soil, groundwater, and vapor intrusion. The potential exposure pathways for terrestrial ecological receptors are incomplete as described in Section 5.3.4 below.

### 5.3.1 Soil Exposure Pathways

Two soil exposure pathways, direct-contact and leaching-to-groundwater were evaluated for the Site as follows:

- **Direct-contact pathway:** The direct-contact pathway considers both dermal contact and ingestion of soil at the Site, to a maximum depth of 15 feet bgs. Soil analytical results show soil exceedances of cleanup levels between 1 to 15 feet bgs. The area of contaminated soil was historically capped and covered with pavement, which effectively prevented exposure if these surfaces were maintained, and proper health and safety procedures were observed during subsurface work. In addition, removal of contaminated soil from the ground surface to greater than 15 feet bgs was conducted during the interim action, as described in the Interim Action Work Plan (IAWP; Aspect, 2020c). The IA successfully removed on-Property contaminated soil to greater than 15 feet bgs and the direct contact pathway is incomplete on-Property as documented in the Interim Action Report

(Aspect, 2023b). There are residual soil exceedances shallower than 15 feet bgs in the City ROW north of the Property that were impractical to remove.

- **Soil leaching-to-groundwater pathway:** The soil leaching-to-groundwater transport pathway requires consideration of the highest beneficial use of groundwater at the Site in accordance with WAC 173-340-357(3)(d). The highest potential beneficial use of groundwater at the Site is drinking water. Based on the two groundwater sampling events at the Site, concentrations of Site COCs in groundwater are above the MTCA Method A cleanup levels. Therefore, the soil leaching-to-groundwater pathway is considered complete. In addition, LNAPL was present at the Site in the free-phase as shown on Figure 3. This residual LNAPL represents a large source of mass that is in contact with and leaches to groundwater. The completed IA removed soil and LNAPL sources to groundwater from the Site to the maximum extent practicable (Aspect, 2023b). The risk of exposure via the groundwater-ingestion pathway is considered low and is currently incomplete as discussed below.

### 5.3.2 Groundwater Exposure Pathways

Two groundwater exposure pathways, groundwater-to-surface water and groundwater-ingestion, have been considered for the Site as follows:

- **Groundwater-ingestion pathway:** This groundwater exposure pathway considers ingestion of groundwater at the Site. The potential for exposure to groundwater is considered low, and the pathway is currently incomplete at this Site for the following reasons:
  - Potable water for the Property and surrounding properties is served by a municipal water supply.
  - The Department of Health (DOH) maintains a database of public drinking water wells/systems. DOH records list no such drinking water wells within a mile radius of the Property (DOH, 2022).
  - Given that the groundwater plume at the Site has been delineated downgradient to the east and southeast, and there are no drinking water wells within the Site footprint, the groundwater-ingestion pathway is currently incomplete and the potential for exposure is low under current conditions.
- **Groundwater-to-surface water pathway:** Surface water or groundwater discharge to surface water is not present on or in the vicinity of the Site. The groundwater plume at the Site has been delineated, and this pathway is incomplete.

### 5.3.3 Vapor Intrusion Pathway

The vapor intrusion pathway assessment considered the potential for accumulation of Site COCs in indoor air due to intrusion from impacted soil gas. Contaminants present in soil gas originate from volatilization of Site COCs in the free phase (LNAPL), sorbed phase (soil), and dissolved phase (groundwater). The Aloha Café building on the Property was

demolished, and LNAPL, contaminated soil, and contaminated groundwater within the Property were removed as part of the IA. Therefore, the vapor intrusion exposure pathway for future uses of the Property is incomplete after completion of the IA.

As discussed in Section 4.7 of Ecology's vapor intrusion guidance (Ecology, 2022), the measured indoor air concentrations were adjusted by subtracting the VOC concentrations in ambient air. These adjusted indoor air results represent a more accurate potential contribution of vapor intrusion to VOC concentrations in indoor air. Crawlspace air results were also adjusted by subtracting the ambient background air concentrations. The adjusted indoor air and crawlspace air results are used for evaluation in this section.

Based on the results of the Tier II vapor intrusion assessment, the vapor intrusion exposure pathway for the Chri-Mar Apartments building is not complete. This conclusion is based on multiple lines of evidence:

1. The December 2021 and February 2023 sampling events detected benzene, naphthalene, and total TPH concentrations in indoor air exceeding their respective MTCA Method B cleanup levels in locations where the corresponding crawlspace results were detected below cleanup levels.
2. The November 2022 sampling event recorded the highest living room total calculated TPH concentrations, but the January 2023 sampling event recorded the highest crawlspace and ambient total TPH concentrations. This temporal variability indicates that living room concentrations are not dependent on crawlspace concentrations, and crawlspace concentrations are likely a function of ambient air concentrations.
3. TPH, naphthalene, and benzene were detected in indoor air at concentrations exceeding their respective MTCA Method B indoor cleanup levels in all units in the Chri-Mar Apartments building during at least one event. However, when comparing the concentrations in indoor air to crawlspace air, it is likely that both ambient air and background sources within each unit contribute to the concentration measured in indoor air based on the following lines of evidence:
  - a. The three air-phase hydrocarbon fractions, which make up the total TPH concentration, vary between crawlspace and indoor air samples. The C5-C8 fraction is consistently the greatest contributor to crawlspace total TPH concentrations. The C9-C12 aliphatic fraction was detected in indoor air in every unit; in December 2021 and February 2022 the corresponding crawlspace sample was non-detect for C9-C12 fraction.
  - b. Naphthalene was detected in every unit at a concentration greater than the MTCA Method B indoor air cleanup level. However, during the December 2021 event the indoor air naphthalene concentrations were an order of magnitude greater than the concentrations detected in crawlspace air. In addition, during the February 2023 event naphthalene was non-detect in crawlspace air. Naphthalene has never been detected in Site soil gas at a concentration exceeding the MTCA Method B subslab soil gas screening level.

- c. Benzene was detected in every unit at a concentration exceeding the MTCA Method B indoor air cleanup level. However, indoor air benzene concentrations strongly correlate with ambient air benzene concentrations (which are also above the cleanup level) with the exception of Unit #131 where the indoor air concentrations exceed ambient air concentrations and there are documented background sources within the unit including tenant smoking within the unit.

Based on these multiple lines of evidence, the vapor intrusion exposure pathway in the Chri-Mar Apartments building is incomplete based on the results of the Tier II vapor intrusion assessment. Any Site contributions to off-Property soil gas were removed by the IA. Active ventilation will continue including operations and maintenance on the fan, monitoring the vacuum on the inlet side of the fan, and confirmation monitoring. The active ventilation system will be converted to passive operation, and ultimately decommissioned based on confirmation sampling requirements defined in the Ventilation Work Plan (Aspect, 2023a).

## 5.4 Terrestrial Ecological Evaluation

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The purpose of a Terrestrial Ecological Evaluation (TEE) is to assess the potential risk to terrestrial plants and/or animals that live entirely or primarily on affected land. This Site qualifies for a TEE exclusion under WAC 173-340-7491(1)(c)(i), *For sites contaminated with hazardous substances other than those specified in (c)(ii) of this subsection, there is less than 1.5 acres of contiguous undeveloped land on the site or within 500 feet of any area of the site.* The contiguous undeveloped land to the west of the Site is less than 1.5 acres. A copy of the TEE form documenting this exclusion is provided in Appendix E.

## 6 Proposed Cleanup Standards

This section presents the proposed cleanup standards by which evaluation of remedial action(s) will be measured. The areas to be addressed by remedial action(s) are also recapped below.

### 6.1 Applicable or Relevant and Appropriate Requirements

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The most applicable or relevant and appropriate requirement (ARAR) for the Site is Ecology's MTCA cleanup levels and regulations that address the implementation of a cleanup under MTCA (Chapter 173.105D Revised Code of Washington [RCW]; Chapter 173-340 WAC). Other potentially applicable or relevant and appropriate requirements include:

- Solid waste management Reduction and Recycling (Chapter 70.95 RCW)
- Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 RCW)
- Washington Clean Air Act (Chapter 70.94 RCW)
- Puget Sound Clean Air Agency Regulations (<http://www.pscleanair.org>)
- OSHA, 29 CFR Subpart 1910.120
- Washington Industrial Safety and Health Act (WISHA)
- Archaeological and Cultural Resources Act (Chapter 43.53 RCW)
- State Environmental Policy Act (Chapter 43.21C RCW, Chapter 173-802 WAC, and Chapter 197-11 WAC)
- Permits from local municipalities as required for activities at the Site, examples include City of Lynnwood demolition, tree clearing, tank decommissioning, grading, and street use or right-of-way permits.

### 6.2 Cleanup Standards

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Cleanup actions conducted in accordance with MTCA must comply with cleanup standards for the identified COCs and affected media as well as applicable regulatory requirements based on federal and state laws (WAC 173-340-710). Cleanup standards for the Site include establishing cleanup levels and the points of compliance at which those cleanup levels will be attained in soil, groundwater, and air. The following presents the cleanup levels and points of compliance for the Site.

#### 6.2.1 Cleanup Levels

The cleanup levels based on the affected media and exposure pathway assessment for the Site are shown in Table E below. As described in Section 5.2.3, indoor air does not appear to be impacted at the Site. However, indoor air has been retained as a potentially affected media based on the COCs observed in soil gas at the Property.

**Table E. Site Cleanup Levels**

	<b>COC</b>	<b>Cleanup Levels</b>	
Soil	TPHg	30 mg/kg	MTCA Method A Cleanup Levels
	TPHd	2,000 mg/kg	
	TPHo	2,000 mg/kg	
	Benzene	0.03 mg/kg	
	Toluene	7 mg/kg	
	Ethylbenzene	6 mg/kg	
	Xylenes	9 mg/kg	
	Naphthalene	5 mg/kg	
Groundwater	TPHg	800 ug/L	MTCA Method A Cleanup Levels
	TPHd	500 ug/L	
	TPHo	500 ug/L	
	Benzene	5 ug/L	
	Toluene	1,000 ug/L	
	Ethylbenzene	700 ug/L	
	Xylenes	1,000 ug/L	
	Naphthalene	160 ug/L	
Indoor Air	TPH	46 ug/m <sup>3</sup>	MTCA Method B Cleanup Levels
	Benzene	0.32 ug/m <sup>3</sup>	
	Naphthalene	0.074 ug/m <sup>3</sup>	

**6.2.2 Standard Points of Compliance**

The standard points of compliance have been selected for the Site as follows:

- **Soil for protection from direct contact.** Ground surface to a depth of 15 feet
- **Soil for protection of groundwater.** Throughout the Site
- **Groundwater for protection of drinking water.** Extending vertically from the upper-most level of the saturated zone to the lowest-most depth potentially affected
- **Indoor Air for protection from inhalation.** Throughout the Site

When it is not practicable to achieve cleanup levels in soil at the standard points of compliance, the cleanup action may involve containment of hazardous substances. Remedies involving containment may still be determined to comply with cleanup standards, provided:

1. The selected remedy is permanent to the maximum extent practicable.
2. The cleanup action is protective of human health and the environment.
3. Appropriate institutional controls, including compliance monitoring and periodic reviews, are implemented (WAC 173-340-740(6)(f)).

**6.2.3 Areas Requiring Remediation**

The areas to be addressed by a remedy for this Site have been delineated to the extent possible based on the nature and extent of contamination and cleanup standards described in the previous sections. The areas requiring remediation for the Site include the lateral and vertical extents of soil contaminated above the cleanup levels, including the free-phase LNAPL body present on the Property (Figure 3), and the extents of contaminated

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groundwater at the Site (Figure 5). The IA soil confirmation results and post-IA groundwater monitoring results will be incorporated into the FS Report to update the areas requiring remediation for evaluation of final cleanup alternatives.

## 7 Conclusions and Recommendations

Contaminated soil and groundwater at the Site are a result of a gasoline, diesel, and waste oil releases from historical operations at the Property. The areas to be addressed by a remedy for this Site have been delineated based on the affected media, nature and extent of contamination, and cleanup standards described in this RI report. The potential exposure pathways for human health and terrestrial ecological risk are currently considered incomplete based on available data.

Concurrently with the RI, an IA was conducted at the Site and removed the LNAPL, removed on-Property impacts to soil above MTCA Method A cleanup levels to the extent practicable, and incidentally removed impacted groundwater at the Site as needed for construction (Aspect, 2023b). The IA also mitigated on- and off-Property exposure pathways at the Site. Post-IA groundwater monitoring will be conducted to evaluate cleanup alternatives under the feasibility study (FS) process as described in WAC 173-340-350(8).

The IA soil performance monitoring and post-IA groundwater monitoring results will be incorporated into an updated conceptual site model as part of the FS, and the updated conceptual site model will form the basis for preparing cleanup alternatives to be evaluated in the FS for selection of a final cleanup remedy for the Site.

## 8 References

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## 9 Limitations

Work for this project was performed for Strickland Real Estate Holdings, LLC (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

# **TABLES**

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location		SB		SB1		SB1-CAM	
			Date	Date	08/24/1995	08/24/1995	11/06/1995	11/06/1995	11/16/2006	11/16/2006
			Sample Name	Sample Name	SB-16"	SB-24"	SB1-12.5'	SB1-16'	SB1-CAM-7.5	SB1-CAM-12.5
			Depth Below Ground Surface	Depth Below Ground Surface	1.33 ft	2 ft	12.5 ft	16 ft	7.5 ft	12.5 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>										
Gasoline-Range Organics	mg/kg	30	--	--	4100	< 5 U	4.51	12.3		
Diesel-Range Organics	mg/kg	2000	1400	630	< 50 U	--	< 10.8 U	< 11.4 U		
Motor Oil-Range Organics	mg/kg	2000	5200	2000	< 100 U	--	< 27.1 U	< 28.6 U		
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	--	--	--	--	--		
<b>BTEX</b>										
Benzene	mg/kg	0.03	--	--	18	< 0.1 U	0.14	0.73		
Toluene	mg/kg	7	--	--	150	< 0.1 U	0.42	1.7		
Ethylbenzene	mg/kg	6	--	--	57	< 0.1 U	< 0.08 U	0.18		
Total Xylenes	mg/kg	9	--	--	280	< 0.3 U	< 0.24 U	0.9		
<b>Metals</b>										
Lead	mg/kg	250	--	--	--	--	1.71	2.06		
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>										
Naphthalene	mg/kg	5	--	--	--	--	0.1138	0.0152		
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	< 0.0195 U	< 0.0208 U		
<b>Polychlorinated Biphenyls (PCBs)</b>										
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	< 0.0108 U	< 0.0115 U		
<b>Volatile Organic Compounds (VOCs)</b>										
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--		
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--		
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--		
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--		
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--		
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--		
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--		
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--		
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--		
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--		
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--		
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	< 0.04 U	< 0.04 U		
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--		
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	--	< 0.04 U	< 0.04 U		
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--		
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--		
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--		
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--		
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--		
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--		
2-Butanone	mg/kg		--	--	--	--	--	--		
2-Chlorotoluene	mg/kg		--	--	--	--	--	--		
2-Hexanone	mg/kg		--	--	--	--	--	--		
4-Chlorotoluene	mg/kg		--	--	--	--	--	--		
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--		
Acetone	mg/kg		--	--	--	--	--	--		
Bromobenzene	mg/kg		--	--	--	--	--	--		
Bromodichloromethane	mg/kg		--	--	--	--	--	--		
Bromoform	mg/kg		--	--	--	--	--	--		
Bromomethane	mg/kg		--	--	--	--	--	--		
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--		
Chlorobenzene	mg/kg		--	--	--	--	--	--		
Chloroethane	mg/kg		--	--	--	--	--	--		
Chloroform	mg/kg		--	--	--	--	--	--		
Chloromethane	mg/kg		--	--	--	--	--	--		
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--		
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--		
Dibromochloromethane	mg/kg		--	--	--	--	--	--		
Dibromomethane	mg/kg		--	--	--	--	--	--		
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--		
Isopropylbenzene	mg/kg		--	--	--	--	--	--		
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	< 0.41 U	< 0.39 U		
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--		
n-Hexane	mg/kg		--	--	--	--	--	--		
n-Propylbenzene	mg/kg		--	--	--	--	--	--		
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--		
sec-Butylbenzene	mg/kg		--	--	--	--	--	--		
Styrene	mg/kg		--	--	--	--	--	--		
tert-Butylbenzene	mg/kg		--	--	--	--	--	--		
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--		
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--		
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--		
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--		
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--		
Vinyl Chloride	mg/kg		--	--	--	--	--	--		

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

			Location	SB2	SW	WW	WW2	WW4	BOT
			Date	11/06/1995	08/22/1995	08/22/1995	08/22/1995	08/24/1995	08/24/1995
			Sample Name	SB2-15'	SW	WW	WW2	WW4	BOT
			Depth Below Ground Surface	15 ft	6 ft	6 ft	-	10 ft	9 ft
Analyte	Unit	MTCA Method A Cleanup Level							
<b>Total Petroleum Hydrocarbons (TPHs)</b>									
Gasoline-Range Organics	mg/kg	30	<b>640</b>	--	--	--	--	--	--
Diesel-Range Organics	mg/kg	2000	--	< 25 U	<b>5100</b>	--	--	< 25 U	<b>27</b>
Motor Oil-Range Organics	mg/kg	2000	--	< 50 U	<b>13000</b>	--	--	< 50 U	<b>66</b>
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	--	--	--	--	--	--
<b>BTEX</b>									
Benzene	mg/kg	0.03	<b>2.4</b>	--	--	--	< 0.1 U	--	--
Toluene	mg/kg	7	<b>15</b>	--	--	--	< 0.1 U	--	--
Ethylbenzene	mg/kg	6	<b>7</b>	--	--	--	< 0.1 U	--	--
Total Xylenes	mg/kg	9	<b>33</b>	--	--	--	< 0.3 U	--	--
<b>Metals</b>									
Lead	mg/kg	250	--	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Naphthalene	mg/kg	5	--	--	--	--	--	--	--
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs)</b>									
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--
<b>Volatile Organic Compounds (VOCs)</b>									
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--	--
1,1,1,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	--	< 0.1 U	--	--
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--	--	--
Chloroethane	mg/kg		--	--	--	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	--
Vinyl Chloride	mg/kg		--	--	--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

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"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

			Location	MW-1		MW-2	
			Date	11/16/2006	11/16/2006	11/17/2006	11/17/2006
			Sample Name	GW1-17.5	GW1-27.5	GW2-12.5	GW2-17.5
			Depth Below Ground Surface	17.5 ft	27.5 ft	12.5 ft	17.5 ft
Analyte	Unit	MTCA Method A Cleanup Level					
<b>Total Petroleum Hydrocarbons (TPHs)</b>							
Gasoline-Range Organics	mg/kg	30	--	< 3.54 U	<b>4.54</b>	< 3.68 U	<b>9.49</b>
Diesel-Range Organics	mg/kg	2000	< 25 U	< 10.9 U	< 10.6 U	< 11 U	< 11.2 U
Motor Oil-Range Organics	mg/kg	2000	< 50 U	< 27.2 U	< 26.4 U	< 27.4 U	< 28.1 U
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	--	--	--	--
<b>BTEX</b>							
Benzene	mg/kg	0.03	--	<b>0.16</b>	<b>0.14</b>	<b>0.02</b>	<b>0.33</b>
Toluene	mg/kg	7	--	<b>0.34</b>	<b>0.38</b>	< 0.07 U	<b>1</b>
Ethylbenzene	mg/kg	6	--	< 0.07 U	< 0.07 U	< 0.07 U	<b>0.87</b>
Total Xylenes	mg/kg	9	--	< 0.21 U	< 0.21 U	< 0.22 U	<b>0.34</b>
<b>Metals</b>							
Lead	mg/kg	250	--	<b>1.48</b>	<b>0.962</b>	<b>1.6</b>	<b>1.4</b>
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>							
Naphthalene	mg/kg	5	--	< 0.0108 U	< 0.0106 U	< 0.0111 U	< 0.0113 U
Total cPAHs TEQ	mg/kg	0.1	--	< 0.0195 U	< 0.0192 U	< 0.0201 U	< 0.0205 U
<b>Polychlorinated Biphenyls (PCBs)</b>							
Total PCBs (Sum of Aroclors)	mg/kg	1	--	< 0.0108 U	< 0.0106 U	< 0.0111 U	< 0.0113 U
<b>Volatile Organic Compounds (VOCs)</b>							
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		--	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
1,2-Dichloropropane	mg/kg		--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--
Chloroethane	mg/kg		--	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	< 0.35 U	< 0.36 U	< 0.37 U	< 0.43 U
Methylene Chloride	mg/kg	0.02	--	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--
Vinyl Chloride	mg/kg		--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-3		MW-4		MW-5	
			11/16/2006	11/16/2006	11/17/2006	11/17/2006	11/17/2006	11/17/2006
Date			GW3-7.5	GW3-17.5	GW4-7.5	GW4-17.5	GW5-7.5	GW5-17.5
Sample Name			7.5 ft	17.5 ft	7.5 ft	17.5 ft	7.5 ft	17.5 ft
Depth Below Ground Surface								
Analyte	Unit	MTCA Method A Cleanup Level						
<b>Total Petroleum Hydrocarbons (TPHs)</b>								
Gasoline-Range Organics	mg/kg	30	1820	8.39	1060	8.57	1550	23.9
Diesel-Range Organics	mg/kg	2000	63.3	< 11.1 U	30.9	< 11 U	62.4	< 11 U
Motor Oil-Range Organics	mg/kg	2000	< 27.9 U	< 27.8 U	< 26.8 U	< 27.5 U	< 26.9 U	< 27.5 U
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	--	--	--	--	--
<b>BTEX</b>								
Benzene	mg/kg	0.03	8.6	0.53	0.48	0.24	0.97	0.09
Toluene	mg/kg	7	99	0.85	12	0.44	24	0.52
Ethylbenzene	mg/kg	6	25	0.12	8.2	< 0.08 U	14	0.19
Total Xylenes	mg/kg	9	160	0.39	54	0.31	90	0.9
<b>Metals</b>								
Lead	mg/kg	250	6.69	1.55	2.35	1.58	4.64	1.33
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>								
Naphthalene	mg/kg	5	5.86	< 0.0111 U	4.1	< 0.011 U	6.34	0.0127
Total cPAHs TEQ	mg/kg	0.1	< 0.0201 U	< 0.0201 U	< 0.0194 U	< 0.01991 U	< 0.0195 U	< 0.0201 U
<b>Polychlorinated Biphenyls (PCBs)</b>								
Total PCBs (Sum of Aroclors)	mg/kg	1	< 0.0111 U	0.109	< 0.0107 U	< 0.011 U	< 0.0108 U	< 0.0111 U
<b>Volatile Organic Compounds (VOCs)</b>								
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U	< 0.04 U
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--	--
Chloroethane	mg/kg		--	--	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	< 0.4 U	< 0.39 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--
Vinyl Chloride	mg/kg		--	--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

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**Blue Shaded - Detected result exceeded screening level**

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U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	MW-6		MW-7		MW-8	
			07/05/2007	07/05/2007	07/05/2007	07/05/2007	07/05/2007	07/05/2007
			MW6@15'	MW6@20'	MW7@5'	MW7@20'	MW8@15'	MW8@20'
			15 ft	20 ft	5 ft	20 ft	15 ft	20 ft
Total Petroleum Hydrocarbons (TPHs)								
Gasoline-Range Organics	mg/kg	30	< 3.95 U	< 3.54 U	< 4.11 U	< 4.36 U	<b>834</b>	< 4.19 U
Diesel-Range Organics	mg/kg	2000	--	--	--	--	--	--
Motor Oil-Range Organics	mg/kg	2000	--	--	--	--	--	--
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	--	--	--	--	--
BTEX								
Benzene	mg/kg	0.03	< 0.0158 U	<b>0.0921</b>	< 0.0164 U	< 0.0177 U	<b>2.91</b>	<b>0.0486</b>
Toluene	mg/kg	7	< 0.079 U	< 0.0708 U	<b>0.214</b>	< 0.0886 U	<b>30.9</b>	<b>0.161</b>
Ethylbenzene	mg/kg	6	< 0.079 U	< 0.0708 U	< 0.0822 U	< 0.0886 U	<b>7.76</b>	< 0.0838 U
Total Xylenes	mg/kg	9	< 0.237 U	< 0.212 U	< 0.247 U	< 0.266 U	<b>49.7</b>	< 0.252 U
Metals								
Lead	mg/kg	250	<b>1.49</b>	<b>1.93</b>	<b>2.34</b>	<b>1.85</b>	<b>3.29</b>	<b>1.46</b>
Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	mg/kg	5	--	--	--	--	--	--
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)								
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)								
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.079 U	< 0.0708 U	< 0.0822 U	< 0.0886 U	< 0.0789 U	< 0.0838 U
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		< 0.079 U	< 0.0708 U	< 0.0822 U	< 0.0886 U	< 0.0789 U	< 0.0838 U
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--	--
Chloroethane	mg/kg		--	--	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	< 0.39 U	< 0.35 U	< 0.41 U	< 0.44 U	< 0.39 U	< 0.42 U
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--
Vinyl Chloride	mg/kg		--	--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

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U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location		MW-9		MW-10		HB-SB-3
			Date	Date	07/06/2007	07/06/2007	07/06/2007	07/06/2007	05/10/2010
			Sample Name	Sample Name	MW9@10'	MW9@20'	MW10@5'	MW10@20'	SO-241739-051010-HB-SB-3-5.0
			Depth Below Ground Surface	Depth Below Ground Surface	10 ft	20 ft	5 ft	20 ft	5 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>									
Gasoline-Range Organics	mg/kg	30	< 0.0364 U	< 3.72 U	<b>8.16</b>	<b>3.99</b>			< 0.2 U
Diesel-Range Organics	mg/kg	2000	--	--	--	--	--	--	< 5 U
Motor Oil-Range Organics	mg/kg	2000	--	--	--	--	--	--	< 5 U
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	--	--	--	--	--	--
<b>BTEX</b>									
Benzene	mg/kg	0.03	<b>0.248</b>	<b>0.104</b>	<b>0.119</b>	<b>0.0532</b>			< 0.00083 U
Toluene	mg/kg	7	< 0.0854 U	< 0.0744 U	<b>0.359</b>	<b>0.102</b>			< 0.00083 U
Ethylbenzene	mg/kg	6	<b>0.0854</b>	< 0.0744 U	< 0.0756 U	<b>0.131</b>			< 0.00083 U
Total Xylenes	mg/kg	9	< 0.256 U	<b>0.327</b>	< 0.227 U	< 0.228 U			< 0.0017 U
<b>Metals</b>									
Lead	mg/kg	250	<b>1.96</b>	<b>1.29</b>	<b>5.91</b>	<b>1.54</b>			--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Naphthalene	mg/kg	5	--	--	--	--			--
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--			--
<b>Polychlorinated Biphenyls (PCBs)</b>									
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--			--
<b>Volatile Organic Compounds (VOCs)</b>									
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--			--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--			--
1,1,2-Trichloroethane	mg/kg		--	--	--	--			--
1,1-Dichloroethane	mg/kg		--	--	--	--			--
1,1-Dichloroethene	mg/kg		--	--	--	--			--
1,1-Dichloropropene	mg/kg		--	--	--	--			--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--			--
1,2,3-Trichloropropane	mg/kg		--	--	--	--			--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--			--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--			--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--			--
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.0854 U	< 0.0744 U	< 0.0756 U	< 0.0795 U			--
1,2-Dichlorobenzene	mg/kg		--	--	--	--			--
1,2-Dichloroethane (EDC)	mg/kg		< 0.0854 U	< 0.0744 U	< 0.0756 U	< 0.0794 U			--
1,2-Dichloropropane	mg/kg		--	--	--	--			--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--			--
1,3-Dichlorobenzene	mg/kg		--	--	--	--			--
1,3-Dichloropropane	mg/kg		--	--	--	--			--
1,4-Dichlorobenzene	mg/kg		--	--	--	--			--
2,2-Dichloropropane	mg/kg		--	--	--	--			--
2-Butanone	mg/kg		--	--	--	--			--
2-Chlorotoluene	mg/kg		--	--	--	--			--
2-Hexanone	mg/kg		--	--	--	--			--
4-Chlorotoluene	mg/kg		--	--	--	--			--
4-Methyl-2-pentanone	mg/kg		--	--	--	--			--
Acetone	mg/kg		--	--	--	--			--
Bromobenzene	mg/kg		--	--	--	--			--
Bromodichloromethane	mg/kg		--	--	--	--			--
Bromoform	mg/kg		--	--	--	--			--
Bromomethane	mg/kg		--	--	--	--			--
Carbon Tetrachloride	mg/kg		--	--	--	--			--
Chlorobenzene	mg/kg		--	--	--	--			--
Chloroethane	mg/kg		--	--	--	--			--
Chloroform	mg/kg		--	--	--	--			--
Chloromethane	mg/kg		--	--	--	--			--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--			--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--			--
Dibromochloromethane	mg/kg		--	--	--	--			--
Dibromomethane	mg/kg		--	--	--	--			--
Dichlorodifluoromethane	mg/kg		--	--	--	--			--
Isopropylbenzene	mg/kg		--	--	--	--			--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	< 0.43 U	< 0.37 U	< 0.38 U	< 0.4 U			--
Methylene Chloride	mg/kg	0.02	--	--	--	--			--
n-Hexane	mg/kg		--	--	--	--			--
n-Propylbenzene	mg/kg		--	--	--	--			--
p-Isopropyltoluene	mg/kg		--	--	--	--			--
sec-Butylbenzene	mg/kg		--	--	--	--			--
Styrene	mg/kg		--	--	--	--			--
tert-Butylbenzene	mg/kg		--	--	--	--			--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--			--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--			--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--			--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--			--
Trichlorofluoromethane	mg/kg		--	--	--	--			--
Vinyl Chloride	mg/kg		--	--	--	--			--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

			Location	HB-SB-4	B-05	B-06	B-07	
			Date	05/10/2010	06/10/2019	06/11/2019	06/12/2019	06/12/2019
			Sample Name	SO-241739-051010-HB-SB-4-5.0	B-05-16	B-06-13	B-07-8	B-07-12.5
			Depth Below Ground Surface	5 ft	16 ft	13 ft	8 ft	12.5 ft
Analyte	Unit	MTCA Method A Cleanup Level						
<b>Total Petroleum Hydrocarbons (TPHs)</b>								
Gasoline-Range Organics	mg/kg	30	< 0.24 U	< 5 U	< 5 U	87 J	< 5 U	< 5 U
Diesel-Range Organics	mg/kg	2000	6.1	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Motor Oil-Range Organics	mg/kg	2000	47	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
Diesel and Oil Extended-Range Organics	mg/kg	2000	--	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
<b>BTEX</b>								
Benzene	mg/kg	0.03	< 0.001 U	< 0.02 U	< 0.02 U	--	--	--
Toluene	mg/kg	7	0.0018	< 0.02 U	< 0.02 U	--	--	--
Ethylbenzene	mg/kg	6	< 0.001 U	< 0.02 U	< 0.02 U	--	--	--
Total Xylenes	mg/kg	9	0.002	< 0.06 U	< 0.06 U	--	--	--
<b>Metals</b>								
Lead	mg/kg	250	--	--	--	1.44	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>								
Naphthalene	mg/kg	5	--	--	--	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs)</b>								
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--
<b>Volatile Organic Compounds (VOCs)</b>								
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	< 0.005 U	< 0.005 U	< 0.005 U
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	< 0.005 U	< 0.005 U	< 0.005 U
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--	--
Chloroethane	mg/kg		--	--	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	< 0.005 U	< 0.005 U	< 0.005 U
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--
Vinyl Chloride	mg/kg		--	--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

			Location		B-08		B-09		B-10	B-11	
			Date		07/16/2019	08/05/2020	08/05/2020	07/30/2020	07/28/2020	07/28/2020	
			Sample Name		B-08-13.5	B-09-2.5	B-09-6	B-10-12.5	B-11-5.5	B-11-10.5	
			Depth Below Ground Surface		13.5 ft	2.5 ft	6 ft	12.5 ft	5.5 ft	10.5 ft	
Analyte	Unit	MTCA Method A Cleanup Level									
<b>Total Petroleum Hydrocarbons (TPHs)</b>											
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	12	< 5 U	< 5 U	
Diesel-Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Motor Oil-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	
<b>BTEX</b>											
Benzene	mg/kg	0.03	< 0.02 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	
Toluene	mg/kg	7	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Ethylbenzene	mg/kg	6	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Total Xylenes	mg/kg	9	< 0.06 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	
<b>Metals</b>											
Lead	mg/kg	250	--	--	--	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>											
Naphthalene	mg/kg	5	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	0.082	< 0.05 U	< 0.05 U	
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (PCBs)</b>											
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--	--	
<b>Volatile Organic Compounds (VOCs)</b>											
1,1,1-Trichloroethane	mg/kg	2	< 0.05 U	--	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	--	--	
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	--	--	
1,1-Dichloroethane	mg/kg		< 0.05 U	--	--	--	--	--	--	--	
1,1-Dichloroethene	mg/kg		< 0.05 U	--	--	--	--	--	--	--	
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	--	--	
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--	--	
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	--	--	
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--	--	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	--	--	
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	--	--	--	--	
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	--	
1,2-Dichloroethane (EDC)	mg/kg		< 0.05 U	--	--	--	--	--	--	--	
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--	--	
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	--	
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	--	
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--	--	
2-Butanone	mg/kg		--	--	--	--	--	--	--	--	
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	--	--	
2-Hexanone	mg/kg		--	--	--	--	--	--	--	--	
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	--	--	
Acetone	mg/kg		--	--	--	--	--	--	--	--	
Bromobenzene	mg/kg		--	--	--	--	--	--	--	--	
Bromodichloromethane	mg/kg		--	--	--	--	--	--	--	--	
Bromoform	mg/kg		--	--	--	--	--	--	--	--	
Bromomethane	mg/kg		--	--	--	--	--	--	--	--	
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	--	--	
Chlorobenzene	mg/kg		--	--	--	--	--	--	--	--	
Chloroethane	mg/kg		< 0.5 U	--	--	--	--	--	--	--	
Chloroform	mg/kg		--	--	--	--	--	--	--	--	
Chloromethane	mg/kg		--	--	--	--	--	--	--	--	
cis-1,2-Dichloroethene (cDCE)	mg/kg		< 0.05 U	--	--	--	--	--	--	--	
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--	--	
Dibromochloromethane	mg/kg		--	--	--	--	--	--	--	--	
Dibromomethane	mg/kg		--	--	--	--	--	--	--	--	
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	--	--	
Isopropylbenzene	mg/kg		--	--	--	--	--	--	--	--	
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	--	--	--	--	
Methylene Chloride	mg/kg	0.02	< 0.5 U	--	--	--	--	--	--	--	
n-Hexane	mg/kg		--	--	--	--	--	--	--	--	
n-Propylbenzene	mg/kg		--	--	--	--	--	--	--	--	
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	--	--	
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	--	--	
Styrene	mg/kg		--	--	--	--	--	--	--	--	
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	--	--	
Tetrachloroethene (PCE)	mg/kg	0.05	< 0.025 U	--	--	--	--	--	--	--	
trans-1,2-Dichloroethene	mg/kg		< 0.05 U	--	--	--	--	--	--	--	
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--	--	
Trichloroethene (TCE)	mg/kg	0.03	< 0.02 U	--	--	--	--	--	--	--	
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	--	--	
Vinyl Chloride	mg/kg		< 0.05 U	--	--	--	--	--	--	--	

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Blue Shaded - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

			Location	B-11	GP-04	GP-05		GP-06	MW-11
			Date	07/28/2020	06/05/2019	11/10/2020	11/10/2020	11/10/2020	06/10/2019
			Sample Name	B-11-15	GP-04-2	GP-05-1.25	GP-05-6	GP-06-2.5	MW-11-1
			Depth Below Ground Surface	15 ft	2 ft	1.25 ft	6 ft	2.5 ft	1 ft
Analyte	Unit	MTCA Method A Cleanup Level							
<b>Total Petroleum Hydrocarbons (TPHs)</b>									
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	<b>280</b>
Diesel-Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	--
Motor Oil-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	--
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	--
<b>BTEX</b>									
Benzene	mg/kg	0.03	< 0.03 U	< 0.03 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.2 U
Toluene	mg/kg	7	< 0.05 U	< 0.05 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	<b>0.99</b>
Ethylbenzene	mg/kg	6	< 0.05 U	< 0.05 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	<b>2</b>
Total Xylenes	mg/kg	9	< 0.1 U	< 0.1 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	<b>11</b>
<b>Metals</b>									
Lead	mg/kg	250	--	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Naphthalene	mg/kg	5	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	<b>1.5</b>
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs)</b>									
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--
<b>Volatile Organic Compounds (VOCs)</b>									
1,1,1-Trichloroethane	mg/kg	2	--	< 0.05 U	--	--	--	--	--
1,1,1,2-Tetrachloroethane	mg/kg		--	< 0.05 U	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	< 0.05 U	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	< 0.05 U	--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	< 0.05 U	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	< 0.05 U	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	< 0.25 U	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	< 0.05 U	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	< 0.25 U	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	< 0.5 U	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	< 0.05 U	--	--	--	--	< 0.005 U
1,2-Dichlorobenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		--	< 0.05 U	--	--	--	--	< 0.005 U
1,2-Dichloropropane	mg/kg		--	< 0.05 U	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	< 0.05 U	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	< 0.05 U	--	--	--	--	--
2-Butanone	mg/kg		--	< 0.5 U	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	< 0.05 U	--	--	--	--	--
2-Hexanone	mg/kg		--	< 0.5 U	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	< 0.05 U	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	< 0.5 U	--	--	--	--	--
Acetone	mg/kg		--	< 0.5 U	--	--	--	--	--
Bromobenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
Bromodichloromethane	mg/kg		--	< 0.05 U	--	--	--	--	--
Bromoform	mg/kg		--	< 0.05 U	--	--	--	--	--
Bromomethane	mg/kg		--	< 0.5 U	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	< 0.05 U	--	--	--	--	--
Chlorobenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
Chloroethane	mg/kg		--	< 0.5 U	--	--	--	--	--
Chloroform	mg/kg		--	< 0.05 U	--	--	--	--	--
Chloromethane	mg/kg		--	< 0.5 U	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	< 0.05 U	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	< 0.05 U	--	--	--	--	--
Dibromochloromethane	mg/kg		--	< 0.05 U	--	--	--	--	--
Dibromomethane	mg/kg		--	< 0.05 U	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	< 0.5 U	--	--	--	--	--
Isopropylbenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	< 0.05 U	--	--	--	--	< 0.005 U
Methylene Chloride	mg/kg	0.02	--	< 0.5 U	--	--	--	--	--
n-Hexane	mg/kg		--	< 0.25 U	--	--	--	--	--
n-Propylbenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	< 0.05 U	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
Styrene	mg/kg		--	< 0.05 U	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	< 0.05 U	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	< 0.025 U	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	< 0.05 U	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	< 0.05 U	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	< 0.02 U	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	< 0.5 U	--	--	--	--	--
Vinyl Chloride	mg/kg		--	< 0.05 U	--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location		MW-11	MW-12	MW-13	MW-14	
			Date	Date	06/10/2019	06/10/2019	06/11/2019	06/11/2019	
			Sample Name	Sample Name	MW-11-6	MW-11-13	MW-12-15	MW-13-12.5	MW-14-12.5
			Depth Below Ground Surface	Depth Below Ground Surface	6 ft	13 ft	15 ft	12.5 ft	12.5 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>									
Gasoline-Range Organics	mg/kg	30	2600	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
Diesel-Range Organics	mg/kg	2000	240 X	--	< 50 U	< 50 U	< 50 U	< 50 U	
Motor Oil-Range Organics	mg/kg	2000	< 250 U	--	< 250 U	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended-Range Organics	mg/kg	2000	240 X	--	< 250 U	< 250 U	< 250 U	< 250 U	
<b>BTEX</b>									
Benzene	mg/kg	0.03	0.63	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	
Toluene	mg/kg	7	4.1	0.031	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	
Ethylbenzene	mg/kg	6	38	0.025	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	
Total Xylenes	mg/kg	9	140	0.12	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	
<b>Metals</b>									
Lead	mg/kg	250	8.76	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Naphthalene	mg/kg	5	7.4	--	--	--	--	--	
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (PCBs)</b>									
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	
<b>Volatile Organic Compounds (VOCs)</b>									
1,1,1-Trichloroethane	mg/kg	2	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	
1,1-Dichloroethane	mg/kg		--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
1,1-Dichloroethene	mg/kg		--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.005 U	--	--	--	--	--	
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	
1,2-Dichloroethane (EDC)	mg/kg		< 0.005 U	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	
2-Butanone	mg/kg		--	--	--	--	--	--	
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	
2-Hexanone	mg/kg		--	--	--	--	--	--	
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	
Acetone	mg/kg		--	--	--	--	--	--	
Bromobenzene	mg/kg		--	--	--	--	--	--	
Bromodichloromethane	mg/kg		--	--	--	--	--	--	
Bromoform	mg/kg		--	--	--	--	--	--	
Bromomethane	mg/kg		--	--	--	--	--	--	
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	
Chlorobenzene	mg/kg		--	--	--	--	--	--	
Chloroethane	mg/kg		--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	
Chloroform	mg/kg		--	--	--	--	--	--	
Chloromethane	mg/kg		--	--	--	--	--	--	
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	
Dibromochloromethane	mg/kg		--	--	--	--	--	--	
Dibromomethane	mg/kg		--	--	--	--	--	--	
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	
Isopropylbenzene	mg/kg		--	--	--	--	--	--	
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	< 0.005 U	--	--	--	--	--	
Methylene Chloride	mg/kg	0.02	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	
n-Hexane	mg/kg		--	--	--	--	--	--	
n-Propylbenzene	mg/kg		--	--	--	--	--	--	
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	
Styrene	mg/kg		--	--	--	--	--	--	
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	
trans-1,2-Dichloroethene	mg/kg		--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	
Trichloroethene (TCE)	mg/kg	0.03	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	
Vinyl Chloride	mg/kg		--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

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**Blue Shaded - Detected result exceeded screening level**

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U - Analyte not detected at or above Reporting Limit (RL) shown

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X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

			Location		MW-15					MW-16
			Date	Sample Name	06/12/2019	06/12/2019	06/12/2019	06/12/2019	06/12/2019	06/14/2019
			Sample Name	MW-15-7.5	MW-15-10.5	MW-15-13	MW-15-17.5	MW-15-25	MW-16-7.5	
			Depth Below Ground Surface	7.5 ft	10.5 ft	13 ft	17.5 ft	25 ft	7.5 ft	
Analyte	Unit	MTCA Method A Cleanup Level								
<b>Total Petroleum Hydrocarbons (TPHs)</b>										
Gasoline-Range Organics	mg/kg	30	< 5 U	6500 J	3400	200	< 5 U	< 5 U	< 5 U	
Diesel-Range Organics	mg/kg	2000	< 50 U	1500 X	990 X	< 50 U	< 50 U	< 50 U	< 50 U	
Motor Oil-Range Organics	mg/kg	2000	< 250 U	590	370	< 250 U	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	2090 X	1360 X	< 250 U	< 250 U	< 250 U	< 250 U	
<b>BTEX</b>										
Benzene	mg/kg	0.03	--	--	0.7 J	0.22	0.026	--	--	
Toluene	mg/kg	7	--	--	4.7 J	0.096	< 0.005 U	--	--	
Ethylbenzene	mg/kg	6	--	--	10 J	0.19	< 0.005 UJ	--	--	
Total Xylenes	mg/kg	9	--	--	64 J	1.19	< 0.01 U	--	--	
<b>Metals</b>										
Lead	mg/kg	250	--	1.88	1.93	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>										
Naphthalene	mg/kg	5	< 0.005 UJ	6.3 J	4.9	--	--	--	--	
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (PCBs)</b>										
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--	
<b>Volatile Organic Compounds (VOCs)</b>										
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	--	
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	--	
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--	--	
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--	--	
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	--	
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	--	
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	--	
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.005 U	< 0.005 U	< 0.005 U	--	--	--	--	
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,2-Dichloroethane (EDC)	mg/kg		< 0.005 U	< 0.005 U	< 0.005 U	--	--	--	--	
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--	
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	--	
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--	
2-Butanone	mg/kg		--	--	--	--	--	--	--	
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	--	
2-Hexanone	mg/kg		--	--	--	--	--	--	--	
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	--	
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	--	
Acetone	mg/kg		--	--	--	--	--	--	--	
Bromobenzene	mg/kg		--	--	--	--	--	--	--	
Bromodichloromethane	mg/kg		--	--	--	--	--	--	--	
Bromoform	mg/kg		--	--	--	--	--	--	--	
Bromomethane	mg/kg		--	--	--	--	--	--	--	
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	--	
Chlorobenzene	mg/kg		--	--	--	--	--	--	--	
Chloroethane	mg/kg		--	--	--	--	--	--	--	
Chloroform	mg/kg		--	--	--	--	--	--	--	
Chloromethane	mg/kg		--	--	--	--	--	--	--	
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--	--	
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--	
Dibromochloromethane	mg/kg		--	--	--	--	--	--	--	
Dibromomethane	mg/kg		--	--	--	--	--	--	--	
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	--	
Isopropylbenzene	mg/kg		--	--	--	--	--	--	--	
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	< 0.005 U	< 0.005 U	< 0.005 U	--	--	--	--	
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--	--	
n-Hexane	mg/kg		--	--	--	--	--	--	--	
n-Propylbenzene	mg/kg		--	--	--	--	--	--	--	
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	--	
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	--	
Styrene	mg/kg		--	--	--	--	--	--	--	
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	--	
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--	--	
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--	--	
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--	
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--	--	
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	--	
Vinyl Chloride	mg/kg		--	--	--	--	--	--	--	

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

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U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location	MW-17	MW-18	MW-19	MW-20		
			Date	06/14/2019	07/15/2019	07/16/2019	07/30/2020	07/30/2020	07/30/2020
			Sample Name	MW-17-8.5	MW-18-10	MW-19-8.5	MW-20-5'	MW-20-8'	MW-20-13'
			Depth Below Ground Surface	8.5 ft	10 ft	8.5 ft	5 ft	8 ft	13 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>									
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Diesel-Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Motor Oil-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
<b>BTEX</b>									
Benzene	mg/kg	0.03	--	< 0.02 U	< 0.02 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U
Toluene	mg/kg	7	--	< 0.02 U	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Ethylbenzene	mg/kg	6	--	< 0.02 U	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Total Xylenes	mg/kg	9	--	< 0.06 U	< 0.06 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
<b>Metals</b>									
Lead	mg/kg	250	--	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Naphthalene	mg/kg	5	--	--	--	< 0.05 U	<b>0.065</b>	< 0.05 U	< 0.05 U
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs)</b>									
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--
<b>Volatile Organic Compounds (VOCs)</b>									
1,1,1-Trichloroethane	mg/kg	2	--	< 0.05 U	< 0.05 U	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	< 0.05 U	< 0.05 U	--	--	--	--
1,1-Dichloroethene	mg/kg		--	< 0.05 U	< 0.05 U	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		--	< 0.05 U	< 0.05 U	--	--	--	--
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--	--	--
Chloroethane	mg/kg		--	< 0.5 U	< 0.5 U	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	< 0.05 U	< 0.05 U	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.02	--	< 0.5 U	< 0.5 U	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	< 0.025 U	< 0.025 U	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	< 0.05 U	< 0.05 U	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	< 0.02 U	< 0.02 U	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	--
Vinyl Chloride	mg/kg		--	< 0.05 U	< 0.05 U	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	MW-21				MW-22	
			07/30/2020	07/28/2020	07/28/2020	07/28/2020	07/30/2020	07/30/2020
			Sample Name	Sample Name	Sample Name	Sample Name	Sample Name	Sample Name
			MW-21A-2.5	MW-21-5	MW-21-10	MW-21-17.5	MW-22A-2.5	MW-22B-5'
			2.5 ft	5 ft	10 ft	17.5 ft	2.5 ft	5 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>								
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Diesel-Range Organics	mg/kg	2000	<b>90 X</b>	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Motor Oil-Range Organics	mg/kg	2000	<b>360</b>	< 250 U	< 250 U	< 250 U	< 250 U	<b>680</b>
Diesel and Oil Extended-Range Organics	mg/kg	2000	<b>450 X</b>	< 250 U	< 250 U	< 250 U	< 250 U	<b>680</b>
<b>BTEX</b>								
Benzene	mg/kg	0.03	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U
Toluene	mg/kg	7	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Ethylbenzene	mg/kg	6	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Total Xylenes	mg/kg	9	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
<b>Metals</b>								
Lead	mg/kg	250	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>								
Naphthalene	mg/kg	5	< 0.05 U	< 0.05 U	<b>0.097</b>	< 0.05 U	< 0.05 U	< 0.05 U
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs)</b>								
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--
<b>Volatile Organic Compounds (VOCs)</b>								
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	--	--	--
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--
2-Butanone	mg/kg		--	--	--	--	--	--
2-Chlorotoluene	mg/kg		--	--	--	--	--	--
2-Hexanone	mg/kg		--	--	--	--	--	--
4-Chlorotoluene	mg/kg		--	--	--	--	--	--
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--
Acetone	mg/kg		--	--	--	--	--	--
Bromobenzene	mg/kg		--	--	--	--	--	--
Bromodichloromethane	mg/kg		--	--	--	--	--	--
Bromoform	mg/kg		--	--	--	--	--	--
Bromomethane	mg/kg		--	--	--	--	--	--
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--
Chlorobenzene	mg/kg		--	--	--	--	--	--
Chloroethane	mg/kg		--	--	--	--	--	--
Chloroform	mg/kg		--	--	--	--	--	--
Chloromethane	mg/kg		--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Dibromochloromethane	mg/kg		--	--	--	--	--	--
Dibromomethane	mg/kg		--	--	--	--	--	--
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--
Isopropylbenzene	mg/kg		--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--
n-Hexane	mg/kg		--	--	--	--	--	--
n-Propylbenzene	mg/kg		--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--
sec-Butylbenzene	mg/kg		--	--	--	--	--	--
Styrene	mg/kg		--	--	--	--	--	--
tert-Butylbenzene	mg/kg		--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--
Vinyl Chloride	mg/kg		--	--	--	--	--	--

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Blue Shaded - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	MW-22				MW-23		
			Location	Date		Date			
			Sample Name	07/28/2020	07/28/2020	07/28/2020	07/28/2020	07/28/2020	07/28/2020
			Depth Below Ground Surface	MW-22-10	MW-22-12.5	MW-22-16	MW-22-25	MW-23-8	MW-23-12.5
		10 ft	12.5 ft	16 ft	25 ft	8 ft	12.5 ft		
<b>Total Petroleum Hydrocarbons (TPHs)</b>									
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
Diesel-Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Motor Oil-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	
<b>BTEX</b>									
Benzene	mg/kg	0.03	< 0.03 U	< 0.03 U	<b>0.069</b>	< 0.03 U	< 0.03 U	< 0.03 U	
Toluene	mg/kg	7	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Ethylbenzene	mg/kg	6	< 0.05 U	<b>0.068</b>	<b>0.12</b>	< 0.05 U	< 0.05 U	< 0.05 U	
Total Xylenes	mg/kg	9	< 0.1 U	<b>0.11</b>	<b>0.63</b>	< 0.1 U	< 0.1 U	< 0.1 U	
<b>Metals</b>									
Lead	mg/kg	250	--	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Naphthalene	mg/kg	5	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (PCBs)</b>									
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	
<b>Volatile Organic Compounds (VOCs)</b>									
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--	
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--	
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	--	--	
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	--	--	--	
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	
2-Butanone	mg/kg		--	--	--	--	--	--	
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	
2-Hexanone	mg/kg		--	--	--	--	--	--	
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	
Acetone	mg/kg		--	--	--	--	--	--	
Bromobenzene	mg/kg		--	--	--	--	--	--	
Bromodichloromethane	mg/kg		--	--	--	--	--	--	
Bromoform	mg/kg		--	--	--	--	--	--	
Bromomethane	mg/kg		--	--	--	--	--	--	
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	
Chlorobenzene	mg/kg		--	--	--	--	--	--	
Chloroethane	mg/kg		--	--	--	--	--	--	
Chloroform	mg/kg		--	--	--	--	--	--	
Chloromethane	mg/kg		--	--	--	--	--	--	
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--	
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	
Dibromochloromethane	mg/kg		--	--	--	--	--	--	
Dibromomethane	mg/kg		--	--	--	--	--	--	
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	
Isopropylbenzene	mg/kg		--	--	--	--	--	--	
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	--	--	
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--	
n-Hexane	mg/kg		--	--	--	--	--	--	
n-Propylbenzene	mg/kg		--	--	--	--	--	--	
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	
Styrene	mg/kg		--	--	--	--	--	--	
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--	
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--	
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--	
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	
Vinyl Chloride	mg/kg		--	--	--	--	--	--	

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location		MW-23	MW-24	MW-25	MW-26	MW-27	
			Date	Date	07/28/2020	07/28/2020	07/29/2020	07/30/2020	07/29/2020	07/29/2020
			Sample Name	Sample Name	MW-23-18	MW-23-25	MW-24-10.5	MW-25-8'	MW-26-12.5	MW-27-10.5
			Depth Below Ground Surface	Depth Below Ground Surface	18 ft	25 ft	10.5 ft	8 ft	12.5 ft	10.5 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>										
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
Diesel-Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
Motor Oil-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	
<b>BTEX</b>										
Benzene	mg/kg	0.03	<b>0.44</b>	<b>0.047</b>	< 0.03 U					
Toluene	mg/kg	7	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Ethylbenzene	mg/kg	6	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Total Xylenes	mg/kg	9	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	
<b>Metals</b>										
Lead	mg/kg	250	--	--	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>										
Naphthalene	mg/kg	5	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (PCBs)</b>										
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--	
<b>Volatile Organic Compounds (VOCs)</b>										
1,1,1-Trichloroethane	mg/kg	2	--	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane	mg/kg		--	--	--	--	--	--	--	
1,1,2-Trichloroethane	mg/kg		--	--	--	--	--	--	--	
1,1-Dichloroethane	mg/kg		--	--	--	--	--	--	--	
1,1-Dichloroethene	mg/kg		--	--	--	--	--	--	--	
1,1-Dichloropropene	mg/kg		--	--	--	--	--	--	--	
1,2,3-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,2,3-Trichloropropane	mg/kg		--	--	--	--	--	--	--	
1,2,4-Trichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	--	--	--	--	
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	--	--	--	--	
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	--	--	--	--	
1,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	--	
1,3-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	
1,3-Dichloropropane	mg/kg		--	--	--	--	--	--	--	
1,4-Dichlorobenzene	mg/kg		--	--	--	--	--	--	--	
2,2-Dichloropropane	mg/kg		--	--	--	--	--	--	--	
2-Butanone	mg/kg		--	--	--	--	--	--	--	
2-Chlorotoluene	mg/kg		--	--	--	--	--	--	--	
2-Hexanone	mg/kg		--	--	--	--	--	--	--	
4-Chlorotoluene	mg/kg		--	--	--	--	--	--	--	
4-Methyl-2-pentanone	mg/kg		--	--	--	--	--	--	--	
Acetone	mg/kg		--	--	--	--	--	--	--	
Bromobenzene	mg/kg		--	--	--	--	--	--	--	
Bromodichloromethane	mg/kg		--	--	--	--	--	--	--	
Bromoform	mg/kg		--	--	--	--	--	--	--	
Bromomethane	mg/kg		--	--	--	--	--	--	--	
Carbon Tetrachloride	mg/kg		--	--	--	--	--	--	--	
Chlorobenzene	mg/kg		--	--	--	--	--	--	--	
Chloroethane	mg/kg		--	--	--	--	--	--	--	
Chloroform	mg/kg		--	--	--	--	--	--	--	
Chloromethane	mg/kg		--	--	--	--	--	--	--	
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	--	--	--	--	
cis-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--	
Dibromochloromethane	mg/kg		--	--	--	--	--	--	--	
Dibromomethane	mg/kg		--	--	--	--	--	--	--	
Dichlorodifluoromethane	mg/kg		--	--	--	--	--	--	--	
Isopropylbenzene	mg/kg		--	--	--	--	--	--	--	
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	--	--	--	--	
Methylene Chloride	mg/kg	0.02	--	--	--	--	--	--	--	
n-Hexane	mg/kg		--	--	--	--	--	--	--	
n-Propylbenzene	mg/kg		--	--	--	--	--	--	--	
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	--	
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	--	
Styrene	mg/kg		--	--	--	--	--	--	--	
tert-Butylbenzene	mg/kg		--	--	--	--	--	--	--	
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--	--	
trans-1,2-Dichloroethene	mg/kg		--	--	--	--	--	--	--	
trans-1,3-Dichloropropene	mg/kg		--	--	--	--	--	--	--	
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	--	--	--	--	
Trichlorofluoromethane	mg/kg		--	--	--	--	--	--	--	
Vinyl Chloride	mg/kg		--	--	--	--	--	--	--	

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

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UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

"--" - Sample not analyzed for this analyte.

**Table 1. Soil Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location		GP-05	GP-06
			Date	11/10/2020	11/10/2020	11/10/2020
			Sample Name	GP-05-1.25	GP-05-6	GP-06-2.5
			Depth Below Ground Surface	1.25 ft	6 ft	2.5 ft
<b>Total Petroleum Hydrocarbons (TPHs)</b>						
Gasoline-Range Organics	mg/kg	30	< 5 U	< 5 U	< 5 U	
Diesel-Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	
Motor Oil-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended-Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	
<b>BTEX</b>						
Benzene	mg/kg	0.03	< 0.02 U	< 0.02 U	< 0.02 U	
Toluene	mg/kg	7	< 0.02 U	< 0.02 U	< 0.02 U	
Ethylbenzene	mg/kg	6	< 0.02 U	< 0.02 U	< 0.02 U	
Total Xylenes	mg/kg	9	< 0.06 U	< 0.06 U	< 0.06 U	
<b>Metals</b>						
Lead	mg/kg	250	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>						
Naphthalene	mg/kg	5	< 0.05 U	< 0.05 U	< 0.05 U	
Total cPAHs TEQ	mg/kg	0.1	--	--	--	
<b>Polychlorinated Biphenyls (PCBs)</b>						
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	
<b>Volatile Organic Compounds (VOCs)</b>						
1,1,1-Trichloroethane	mg/kg	2	--	--	--	
1,1,1,2-Tetrachloroethane	mg/kg		--	--	--	
1,1,2-Trichloroethane	mg/kg		--	--	--	
1,1-Dichloroethane	mg/kg		--	--	--	
1,1-Dichloroethene	mg/kg		--	--	--	
1,1-Dichloropropene	mg/kg		--	--	--	
1,2,3-Trichlorobenzene	mg/kg		--	--	--	
1,2,3-Trichloropropane	mg/kg		--	--	--	
1,2,4-Trichlorobenzene	mg/kg		--	--	--	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	
1,2-Dibromo-3-chloropropane	mg/kg		--	--	--	
1,2-Dibromoethane (EDB)	mg/kg	0.005	--	--	--	
1,2-Dichlorobenzene	mg/kg		--	--	--	
1,2-Dichloroethane (EDC)	mg/kg		--	--	--	
1,2-Dichloropropane	mg/kg		--	--	--	
1,3,5-Trimethylbenzene	mg/kg		--	--	--	
1,3-Dichlorobenzene	mg/kg		--	--	--	
1,3-Dichloropropane	mg/kg		--	--	--	
1,4-Dichlorobenzene	mg/kg		--	--	--	
2,2-Dichloropropane	mg/kg		--	--	--	
2-Butanone	mg/kg		--	--	--	
2-Chlorotoluene	mg/kg		--	--	--	
2-Hexanone	mg/kg		--	--	--	
4-Chlorotoluene	mg/kg		--	--	--	
4-Methyl-2-pentanone	mg/kg		--	--	--	
Acetone	mg/kg		--	--	--	
Bromobenzene	mg/kg		--	--	--	
Bromodichloromethane	mg/kg		--	--	--	
Bromoform	mg/kg		--	--	--	
Bromomethane	mg/kg		--	--	--	
Carbon Tetrachloride	mg/kg		--	--	--	
Chlorobenzene	mg/kg		--	--	--	
Chloroethane	mg/kg		--	--	--	
Chloroform	mg/kg		--	--	--	
Chloromethane	mg/kg		--	--	--	
cis-1,2-Dichloroethene (cDCE)	mg/kg		--	--	--	
cis-1,3-Dichloropropene	mg/kg		--	--	--	
Dibromochloromethane	mg/kg		--	--	--	
Dibromomethane	mg/kg		--	--	--	
Dichlorodifluoromethane	mg/kg		--	--	--	
Isopropylbenzene	mg/kg		--	--	--	
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	--	--	--	
Methylene Chloride	mg/kg	0.02	--	--	--	
n-Hexane	mg/kg		--	--	--	
n-Propylbenzene	mg/kg		--	--	--	
p-Isopropyltoluene	mg/kg		--	--	--	
sec-Butylbenzene	mg/kg		--	--	--	
Styrene	mg/kg		--	--	--	
tert-Butylbenzene	mg/kg		--	--	--	
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	
trans-1,2-Dichloroethene	mg/kg		--	--	--	
trans-1,3-Dichloropropene	mg/kg		--	--	--	
Trichloroethene (TCE)	mg/kg	0.03	--	--	--	
Trichlorofluoromethane	mg/kg		--	--	--	
Vinyl Chloride	mg/kg		--	--	--	

**Notes:**

mg/kg - milligrams per kilogram, ft = feet; MTCA = Model Toxics Control Act

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U - Analyte not detected at or above Reporting Limit (RL) shown

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"--" - Sample not analyzed for this analyte.

**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-1														
Analyte	Unit	MTCA Method A Cleanup Level	Sample	MW-1-39080	MW-1-39128	MW-1-39178	MW-1-39291	MW-1-39356	MW-1-39457	MW-1-39639	MW-1-39819	MW-1-40007	MW-1-40388	MW-1-40563	MW-1-41220	MW-1-41394	MW-1-41571
			Date	12/29/2006	02/15/2007	04/06/2007	07/28/2007	10/01/2007	01/10/2008	07/10/2008	01/06/2009	07/13/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013	10/24/2013
<b>TPHs</b>																	
Gasoline-Range Organics	ug/L	800	<b>42100</b>	<b>41200</b>	<b>30200</b>	<b>5850</b>	<b>23900</b>	<b>73000</b>	<b>800</b>	< 100 U	<b>7500</b>	--	--	<b>16700</b>	<b>7300</b>	<b>445</b>	
Diesel-Range Organics	ug/L	500	< 255 U	< 269 U	< 258 U	< 258 U	<b>1540 X</b>	< 243 U	<b>1400</b>	<b>190</b>	<b>2800 X</b>	<b>320 X</b>	<b>2550</b>	<b>1460</b>	<b>1600</b>	<b>898</b>	
Motor Oil-Range Organics	ug/L	500	< 510 U	< 538 U	< 515 U	< 515 U	< 105 U	< 485 U	< 300 U	< 380 U	< 100 U	<b>110</b>	<b>725</b>	<b>163</b>	<b>818</b>	<b>172</b>	
<b>BTEX</b>																	
Benzene	ug/L	5	<b>9190</b>	<b>9230</b>	<b>7450</b>	<b>2400</b>	<b>6270</b>	<b>16500</b>	<b>280</b>	<b>1</b>	<b>1200</b>	<b>32</b>	<b>13400</b>	<b>4880</b>	<b>1590</b>	<b>28.8</b>	
Toluene	ug/L	1000	<b>2140</b>	<b>1840</b>	<b>732</b>	<b>32.4</b>	<b>196</b>	<b>4010</b>	<b>13</b>	< 1 U	<b>60</b>	<b>2.9</b>	<b>3950</b>	<b>361</b>	<b>100</b>	< 1 U	
Ethylbenzene	ug/L	700	<b>1090</b>	<b>938</b>	<b>718</b>	<b>131</b>	<b>653</b>	<b>1610</b>	<b>2</b>	< 1 U	<b>220</b>	<b>17</b>	<b>1700</b>	<b>525</b>	<b>374</b>	<b>7.91</b>	
Total Xylenes	ug/L	1000	<b>4100</b>	<b>3710</b>	<b>2310</b>	<b>190</b>	<b>1340</b>	<b>6790</b>	<b>33</b>	< 1 U	<b>470</b>	<b>48</b>	<b>7240</b>	<b>1530</b>	<b>445</b>	<b>7.82</b>	
<b>Metals</b>																	
Lead	ug/L	15	--	--	--	--	--	--	--	--	<b>3.33</b>	--	--	--	--	--	
<b>VOCs</b>																	
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	--	--	--	< 0.01 U	--	--	--	--	--	
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	< 0.29 U	--	--	--	--	--	
Diisopropyl ether (DIPE)	ug/L		--	< 1 U	--	--	--	--	--	< 2 U	--	--	< 1 U	--	--	--	
Ethyl t-butyl ether (ETBE)	ug/L		--	< 1 U	--	--	--	--	--	< 2 U	--	--	< 1 U	--	--	--	
Methyl tert-butyl ether (MTBE)	ug/L	20	--	< 5 U	--	--	--	--	--	< 1 U	--	--	< 1 U	--	--	--	
t-Amyl methyl ether (TAME)	ug/L		--	< 1 U	--	--	--	--	--	< 2 U	--	--	< 1 U	--	--	--	
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	<b>54.6</b>	--	--	--	--	--	< 10 U	--	--	<b>132</b>	--	--	--	

**Notes**

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Cleanup levels with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

U = nondetect

J = estimated

UJ = nondetect, estimated

X = chromatographic pattern did not match fuel standard.

"--" = Sample not analyzed for this analyte.

**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-2														
Analyte	Unit	MTCA Method A Cleanup Level	Sample	MW-2-39080	MW-2-39128	MW-2-39178	MW-2-39291	MW-2-39356	MW-2-39457	MW-2-39639	MW-2-39819	MW-2-40007	MW-2-40388	MW-2-40563	MW-2-41220	MW-2-41394	MW-2-41571
			Date	12/29/2006	02/15/2007	04/06/2007	07/28/2007	10/01/2007	01/10/2008	07/10/2008	01/06/2009	07/13/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013	10/24/2013
<b>TPHs</b>																	
Gasoline-Range Organics	ug/L	800	<b>2640</b>	<b>249</b>	<b>180</b>	<b>3200</b>	<b>3980</b>	<b>5000</b>	<b>540</b>	<b>9200</b>	<b>320</b>	--	--	<b>4070</b>	< 100 U	<b>2350</b>	
Diesel-Range Organics	ug/L	500	< 253 U	< 278 U	< 258 U	< 255 U	<b>1080 X</b>	< 243 U	< 500 U	< 100 U	<b>210 X</b>	<b>200 X</b>	<b>689</b>	<b>757</b>	<b>261</b>	<b>527</b>	
Motor Oil-Range Organics	ug/L	500	< 505 U	< 556 U	< 515 U	< 510 U	< 105 U	< 485 U	< 200 U	< 100 U	< 100 U	< 100 U	<b>402</b>	< 94.3 U	<b>198</b>	<b>181</b>	
<b>BTEX</b>																	
Benzene	ug/L	5	<b>21.7</b>	<b>2.06</b>	<b>1.83</b>	<b>66.1</b>	<b>175</b>	<b>214</b>	<b>4.9</b>	<b>390</b>	<b>3.8</b>	<b>2.1</b>	<b>25.1</b>	<b>228</b>	< 1 U	<b>61.3</b>	
Toluene	ug/L	1000	<b>6.75</b>	< 0.5 U	<b>0.518</b>	<b>7.86</b>	<b>13.7</b>	<b>9.85</b>	< 1 U	<b>16</b>	< 1 U	< 1 U	< 1 U	<b>4.99</b>	< 1 U	<b>1.03</b>	
Ethylbenzene	ug/L	700	<b>55.1</b>	<b>4.36</b>	<b>2.61</b>	<b>137</b>	<b>331</b>	<b>502</b>	<b>9.4</b>	<b>840</b>	<b>3.3</b>	< 1 U	<b>54.4</b>	<b>125</b>	< 1 U	<b>6.49</b>	
Total Xylenes	ug/L	1000	<b>9.91</b>	< 1 U	< 1 U	<b>20.4</b>	<b>47.4</b>	<b>71.0</b>	< 1 U	<b>62.0</b>	< 1 U	< 1 U	<b>5.42</b>	<b>40.3</b>	< 3 U	<b>3.52</b>	
<b>Metals</b>																	
Lead	ug/L	15	--	--	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--
<b>VOCs</b>																	
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	--	--	--	< 0.01 U	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	< 1 U	--	--	--	--	--	< 20 U	--	--	< 1 U	--	--	--	--
Ethyl t-butyl ether (ETBE)	ug/L		--	< 1 U	--	--	--	--	--	< 20 U	--	--	< 1 U	--	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	< 5 U	--	--	--	--	--	< 10 U	--	--	< 1 U	--	--	--	--
t-Amyl methyl ether (TAME)	ug/L		--	< 1 U	--	--	--	--	--	< 20 U	--	--	< 1 U	--	--	--	--
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	< 50 U	--	--	--	--	--	< 100 U	--	--	< 20 U	--	--	--	--

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UJ = nondetect, estimated

X = chromatographic pattern did not match fuel standard.

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**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-3						MW-4			MW-5		
Analyte	Unit	MTCA Method A Cleanup Level	MW-3-39080	MW-3-39128	MW-3-39178	MW-3-39291	MW-3-39356	MW-3-40563	MW-4-39080	MW-4-39128	MW-4-40563	MW-5-39080	MW-5-39128	MW-5-40563
			Date	12/29/2006	02/15/2007	04/06/2007	07/28/2007	10/01/2007	01/20/2011	12/29/2006	02/15/2007	01/20/2011	12/29/2006	02/15/2007
<b>TPHs</b>														
Gasoline-Range Organics	ug/L	800	<b>171000</b>	<b>263000</b>	<b>214000</b>	<b>248000</b>	<b>252000</b>	<b>87800</b>	<b>207000</b>	<b>253000</b>	<b>313000</b>	<b>122000</b>	<b>771000</b>	<b>327000</b>
Diesel-Range Organics	ug/L	500	<b>608</b>	<b>2580 X</b>	<b>867 X</b>	<b>8340</b>	<b>185000 X</b>	--	<b>1810</b>	<b>72100 X</b>	--	<b>603</b>	<b>49200 X</b>	--
Motor Oil-Range Organics	ug/L	500	< 510 U	< 2750 U	< 495 U	< 5.05 U	< 10500 U	<b>7690</b>	< 510 U	< 50000 U	< 9520 U	< 515 U	< 5000 U	<b>109005</b>
<b>BTEX</b>														
Benzene	ug/L	5	<b>28500</b>	<b>29200</b>	<b>26600</b>	<b>28600</b>	<b>29300</b>	<b>12100</b>	<b>32400</b>	<b>31500</b>	<b>12800</b>	<b>7220</b>	<b>12800</b>	<b>3710</b>
Toluene	ug/L	1000	<b>29200</b>	<b>37400</b>	<b>37500</b>	<b>37400</b>	<b>35200</b>	<b>23200</b>	<b>39700</b>	<b>40500</b>	<b>28700</b>	<b>24400</b>	<b>43600</b>	<b>16200</b>
Ethylbenzene	ug/L	700	<b>2950</b>	<b>3140</b>	<b>2850</b>	<b>2810</b>	<b>3260</b>	<b>3020</b>	<b>3200</b>	<b>2990</b>	<b>3180</b>	<b>2280</b>	<b>6000</b>	<b>2690</b>
Total Xylenes	ug/L	1000	<b>15900</b>	<b>18600</b>	<b>16800</b>	<b>12800</b>	<b>19300</b>	<b>19700</b>	<b>18800</b>	<b>18100</b>	<b>21200</b>	<b>13200</b>	<b>40700</b>	<b>15800</b>
<b>Metals</b>														
Lead	ug/L	15	--	--	--	--	--	--	--	--	--	--	--	--
<b>VOCs</b>														
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	< 1 U	--	--	< 1 U	--	--	< 1 U
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	< 100 U	--	--	--	<b>1.24</b>	--	< 100 U	< 1.00 U	--	< 100 U	< 1 U
Ethyl t-butyl ether (ETBE)	ug/L		--	< 100 U	--	--	--	< 1 U	--	< 100 U	< 1 U	--	< 100 U	< 1 U
Methyl tert-butyl ether (MTBE)	ug/L	20	--	< 500 U	--	--	--	--	--	< 500 U	--	--	< 500 U	--
t-Amyl methyl ether (TAME)	ug/L		--	< 100 U	--	--	--	< 1 U	--	< 100 U	< 1 U	--	< 100 U	< 1 U
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	< 5000 U	--	--	--	<b>101</b>	--	< 5000 U	<b>61.8</b>	--	< 5000 U	<b>45.4</b>

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**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location Sample Date			MW-6										
			MW-6-39291	MW-6-39356	MW-6-39457	MW-6-39639	MW-6-39819	MW-6-40007	MW-6-40388	MW-6-40563	MW-6-41220	MW-6-41394	MW-6-41571
Date			07/28/2007	10/01/2007	01/10/2008	07/10/2008	01/06/2009	07/13/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013	10/24/2013
Analyte	Unit	MTCA Method A Cleanup Level											
<b>TPHs</b>													
Gasoline-Range Organics	ug/L	800	<b>52.4</b>	< 250 U	< 50 U	< 50 U	< 100 U	--	--	<b>201</b>	< 100 U	< 100 U	< 100 U
Diesel-Range Organics	ug/L	500	< 253 U	< 105 U	< 250 U	< 500 U	< 100 U	--	< 100 U	--	< 94.3 U	<b>97.8</b>	<b>124</b>
Motor Oil-Range Organics	ug/L	500	< 505 U	< 105 U	< 500 U	< 200 U	< 100 U	--	<b>190</b>	<b>472</b>	< 94.3 U	< 93.5 U	<b>123</b>
<b>BTEX</b>													
Benzene	ug/L	5	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	--	< 0.5 U	< 1 U	< 1 U	< 1 U	< 1 U
Toluene	ug/L	1000	<b>1.25</b>	< 1 U	< 0.5 U	< 1 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 1 U	< 3 U	< 3 U	< 1 U	< 1 U	--	< 1 U	< 3 U	< 3 U	< 3 U	< 2 U
<b>Metals</b>													
Lead	ug/L	15	--	--	--	--	--	< 1 U	--	--	--	--	--
<b>VOCs</b>													
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	--	--	< 1 U	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
Ethyl t-butyl ether (ETBE)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	--	< 1 U	--	--	--	--	--	--
t-Amyl methyl ether (TAME)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	--	--	--	< 10 U	--	--	< 20 U	--	--	--

**Notes**

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J = estimated

UJ = nondetect, estimated

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**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-7										
			MW-7-39291	MW-7-39356	MW-7-39457	MW-7-39639	MW-7-39819	MW-7-40007	MW-7-40388	MW-7-40563	MW-7-41220	MW-7-41394	MW-7-41571
Sample Date			07/28/2007	10/01/2007	01/10/2008	07/10/2008	01/06/2009	07/13/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013	10/24/2013
Analyte	Unit	MTCA Method A Cleanup Level											
<b>TPHs</b>													
Gasoline-Range Organics	ug/L	800	< 50 U	< 250 U	<b>51.2</b>	< 50 U	< 100 U	--	--	<b>119</b>	< 100 U	< 100 U	< 100 U
Diesel-Range Organics	ug/L	500	< 253 U	< 111 U	< 250 U	< 500 U	< 100 U	--	< 100 U	--	<b>94.3</b>	<b>115</b>	< 93.5 U
Motor Oil-Range Organics	ug/L	500	< 495 U	< 111 U	< 500 U	< 200 U	< 100 U	--	< 100 U	<b>174</b>	< 94.3 U	< 93.5 U	<b>106</b>
<b>BTEX</b>													
Benzene	ug/L	5	< 0.5 U	<b>1.78</b>	<b>68.4</b>	< 1 U	< 0.5 U	<b>2.7</b>	< 0.5 U	< 1 U	< 1 U	< 1 U	< 1 U
Toluene	ug/L	1000	< 0.5 U	< 1 U	<b>1.26</b>	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 0.5 U	< 1 U	<b>79.7</b>	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 1 U	< 3 U	<b>110</b>	< 1 U	< 1 U	< 1 U	< 1 U	< 3 U	< 3 U	< 3 U	< 2 U
<b>Metals</b>													
Lead	ug/L	15	--	--	--	--	--	< 1 U	--	--	--	--	--
<b>VOCs</b>													
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	--	--	< 1 U	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
Ethyl t-butyl ether (ETBE)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	--	< 1 U	--	--	--	--	--	--
t-Amyl methyl ether (TAME)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	--	--	--	< 10 U	--	--	< 20 U	--	--	--

**Notes**

MTCA = Model Toxics Control Act; ug/L = micrograms per liter

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**Blue = analyte detected at a concentration greater than the cleanup level**

Cleanup levels with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

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J = estimated

UJ = nondetect, estimated

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**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-8							
			MW-8-39291	MW-8-39356	MW-8-39457	MW-8-39819	MW-8-40388	MW-8-40563	MW-8-41220	MW-8-41394
Sample Date			07/28/2007	10/01/2007	01/10/2008	01/06/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013
Analyte	Unit	MTCA Method A Cleanup Level								
<b>TPHs</b>										
Gasoline-Range Organics	ug/L	800	<b>266000</b>	<b>181000</b>	<b>202000</b>	<b>22000</b>	--	--	<b>75300</b>	<b>103000</b>
Diesel-Range Organics	ug/L	500	<b>8580</b>	<b>6540 X</b>	<b>9190 X</b>	<b>6900</b>	<b>5300 X</b>	<b>6570</b>	<b>3160</b>	<b>3820</b>
Motor Oil-Range Organics	ug/L	500	< 5210 U	< 1110 U	< 4850 U	<b>440</b>	<b>2000 X</b>	<b>1550</b>	< 94.3 U	<b>309</b>
<b>BTEX</b>										
Benzene	ug/L	5	<b>20500</b>	<b>18000</b>	<b>13400</b>	<b>2700</b>	<b>18000</b>	<b>13800</b>	<b>7630</b>	<b>8830</b>
Toluene	ug/L	1000	<b>43600</b>	<b>32000</b>	<b>29600</b>	<b>6300</b>	<b>40000</b>	<b>31500</b>	<b>15200</b>	<b>29400</b>
Ethylbenzene	ug/L	700	<b>3550</b>	<b>2250</b>	<b>2200</b>	<b>390</b>	<b>17000</b>	<b>3290</b>	<b>1140</b>	<b>1950</b>
Total Xylenes	ug/L	1000	<b>23000</b>	<b>14900</b>	<b>14000</b>	<b>4300</b>	<b>110000</b>	<b>21900</b>	<b>6120</b>	<b>11200</b>
<b>Metals</b>										
Lead	ug/L	15	--	--	--	--	--	--	--	--
<b>VOCs</b>										
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	< 1 U	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	--	--	< 40 U	--	< 1 U	--	--
Ethyl t-butyl ether (ETBE)	ug/L		--	--	--	< 40 U	--	< 1 U	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	< 20 U	--	--	--	--
t-Amyl methyl ether (TAME)	ug/L		--	--	--	< 40 U	--	< 1 U	--	--
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	--	--	< 200 U	--	<b>128</b>	--	--

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Cleanup levels with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

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J = estimated

UJ = nondetect, estimated

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"--" = Sample not analyzed for this analyte.

**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location Sample Date			MW-9										
			MW-9-39291	MW-9-39356	MW-9-39457	MW-9-39639	MW-9-39819	MW-9-40007	MW-9-40388	MW-9-40563	MW-9-41220	MW-9-41394	MW-9-41571
Date			07/28/2007	10/01/2007	01/10/2008	07/10/2008	01/06/2009	07/13/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013	10/24/2013
Analyte	Unit	MTCA Method A Cleanup Level											
<b>TPHs</b>													
Gasoline-Range Organics	ug/L	800	< 50 U	<b>299</b>	< 50 U	< 50 U	< 100 U	--	--	--	< 100 U	< 100 U	< 100 U
Diesel-Range Organics	ug/L	500	< 248 U	<b>174 X</b>	< 238 U	< 500 U	< 100 U	--	< 100 U	<b>141</b>	< 94.3 U	< 93.5 U	< 94.3 U
Motor Oil-Range Organics	ug/L	500	< 495 U	< 111 U	< 476 U	< 1000 U	< 100 U	--	< 100 U	<b>463</b>	< 94.3 U	< 93.5 U	< 94.3 U
<b>BTEX</b>													
Benzene	ug/L	5	< 0.5 U	<b>5.52</b>	< 0.5 U	< 1 U	< 0.5 U	< 0.5 U	< 0.5 U	< 1 U	< 1 U	< 1.00 U	< 1.00 U
Toluene	ug/L	1000	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 1 U	< 3 U	< 3 U	< 1 U	< 1 U	< 1 U	< 1 U	< 3 U	< 3 U	< 3 U	< 2 U
<b>Metals</b>													
Lead	ug/L	15	--	--	--	--	--	< 1 U	--	--	--	--	--
<b>VOCs</b>													
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
Ethyl t-butyl ether (ETBE)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	--	< 1 U	--	--	< 1 U	--	--	--
t-Amyl methyl ether (TAME)	ug/L		--	--	--	--	< 2 U	--	--	< 1 U	--	--	--
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	--	--	--	< 10 U	--	--	< 20 U	--	--	--

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**Table 2. Historical Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Location			MW-10										SB-3	SB-4	
Sample			MW-10-39291	MW-10-39356	MW-10-39457	MW-10-39639	MW-10-39819	MW-10-40007	MW-10-40388	MW-10-40563	MW-10-41220	MW-10-41394	MW-10-41571	SB-3-40308	SB-4-40308
Date			07/28/2007	10/01/2007	01/10/2008	07/10/2008	01/06/2009	07/13/2009	07/29/2010	01/20/2011	11/07/2012	04/30/2013	10/24/2013	05/10/2010	05/10/2010
Analyte	Unit	MTCA Method A Cleanup Level													
<b>TPHs</b>															
Gasoline-Range Organics	ug/L	800	<b>6570</b>	<b>27100</b>	<b>11400</b>	<b>1400</b>	<b>29000</b>	<b>4800</b>	--	--	<b>17300</b>	<b>590</b>	<b>6890</b>	<b>360</b>	<b>180</b>
Diesel-Range Organics	ug/L	500	<b>307 X</b>	<b>1820 X</b>	< 248 U	< 500 U	<b>120</b>	< 100 U	< 100 U	<b>707</b>	<b>2710</b>	<b>346</b>	<b>2080</b>	<b>1600 X</b>	<b>2400 X</b>
Motor Oil-Range Organics	ug/L	500	< 505 U	< 556 U	< 495 U	< 1000 U	< 100 U	< 100 U	< 100 U	<b>394</b>	< 94.3 U	<b>148</b>	<b>109</b>	< 100 U	< 100 U
<b>BTEX</b>															
Benzene	ug/L	5	<b>299</b>	<b>1510</b>	<b>316</b>	<b>1400</b>	<b>4800</b>	<b>1600</b>	<b>240</b>	<b>938</b>	<b>5920</b>	<b>48.1</b>	<b>5630</b>	<b>170</b>	< 0.5 U
Toluene	ug/L	1000	<b>179</b>	<b>1220</b>	<b>237</b>	<b>1200</b>	<b>1400</b>	<b>260</b>	<b>9.9</b>	<b>16.6</b>	<b>78.3</b>	<b>1.22</b>	<b>188</b>	< 1 U	< 1 U
Ethylbenzene	ug/L	700	<b>237</b>	<b>1210</b>	<b>842</b>	<b>710</b>	<b>1800</b>	<b>190</b>	<b>45</b>	<b>108</b>	<b>594</b>	<b>15.1</b>	<b>582</b>	< 1 U	< 1 U
Total Xylenes	ug/L	1000	<b>615</b>	<b>2650</b>	<b>604</b>	<b>2310</b>	<b>5100</b>	<b>1000</b>	<b>89</b>	<b>115</b>	<b>1060</b>	<b>21.4</b>	<b>1230</b>	< 1 U	< 1 U
<b>Metals</b>															
Lead	ug/L	15	--	--	--	--	--	<b>1.02</b>	--	--	--	--	--	--	--
<b>VOCs</b>															
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	< 0.01 U	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	< 1.5 U	--	--	--	--	--	--	--
Diisopropyl ether (DIPE)	ug/L		--	--	--	--	< 20 U	--	--	< 1 U	--	--	--	--	--
Ethyl t-butyl ether (ETBE)	ug/L		--	--	--	--	< 20 U	--	--	< 1 U	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	--	< 10 U	--	--	< 1 U	--	--	--	--	--
t-Amyl methyl ether (TAME)	ug/L		--	--	--	--	< 20 U	--	--	< 1 U	--	--	--	--	--
<b>t-Butyl alcohol (TBA)</b>	<b>ug/L</b>		--	--	--	--	< 100 U	--	--	< 20 U	--	--	--	--	--

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### Table 3. Remedial Investigation Groundwater Elevations

Project No. 180357, Lynnwood, Washington

Monitoring Well	TOC Elevation	Date	DTNAPL	DTW	LNAPL Thickness (feet)	Water Table (ft BTOC) <sup>1</sup>	Groundwater Elevation
MW-1	451.74	7/31/2019	--	12.86	--	12.86	438.88
		11/19/2019	--	13.81	--	13.81	437.93
		8/17/2020	--	11.82	--	11.82	439.92
		11/16/2020	--	12.85	--	12.85	438.89
MW-2	450.59	7/31/2019	--	11.51	--	11.51	439.08
		11/19/2019	--	11.76	--	11.76	438.83
		8/17/2020	--	10.77	--	10.77	439.82
		11/16/2020	--	11.3	--	11.30	439.29
MW-3	451.69	7/31/2019	10.45	10.75	0.3	10.52	441.17
		11/19/2019	11.62	12.00	0.38	11.71	439.98
		8/17/2020	9.69	9.94	0.25	9.75	441.94
		11/16/2020	10.93	11.09	0.16	10.97	440.72
MW-4	452.01	7/31/2019	11.22	11.33	0.11	11.25	440.76
		11/19/2019	12.36	12.67	0.31	12.43	439.58
		8/17/2020	--	10.41	--	10.41	441.60
		11/16/2020	11.69	11.71	0.02	11.69	440.32
MW-5	451.38	7/31/2019	9.87	10.69	0.82	10.07	441.31
		11/19/2019	11.37	11.73	0.36	11.46	439.92
		8/17/2020	9.23	9.33	0.1	9.25	442.13
		11/16/2020	10.56	10.71	0.15	10.60	440.78
MW-6	449.4	7/31/2019	--	9.01	--	9.01	440.39
		11/19/2019	--	9.10	--	9.10	440.30
		8/17/2020	--	8.44	--	8.44	440.96
		11/16/2020	--	8.62	--	8.62	440.78
MW-7	450.14	7/31/2019	--	8.29	--	8.29	441.85
		11/19/2019	--	9.12	--	9.12	441.02
		8/17/2020	--	7.79	--	7.79	442.35
		11/16/2020	--	8.4	--	8.40	441.74
MW-8	451.31	7/31/2019	9.41	9.92	0.51	9.53	441.78
		11/19/2019	10.66	11.07	0.41	10.76	440.55
		8/17/2020	--	8.84	--	8.84	442.47
		11/16/2020	9.89	10.02	0.13	9.92	441.39
MW-9	451.75	7/31/2019	--	11.9	--	11.90	439.85
		11/19/2019	--	13.25	--	13.25	438.50
		8/17/2020	--	10.87	--	10.87	440.88
		11/16/2020	--	12.37	--	12.37	439.38
MW-10	451.34	7/31/2019	--	13.53	--	13.53	437.81
		11/20/2019	--	13.99	--	13.99	437.35
		8/17/2020	--	12.59	--	12.59	438.75
		11/16/2020	--	13.35	--	13.35	437.99
MW-11	450.81	7/31/2019	--	9.81	--	9.81	441.00
		11/19/2019	--	10.83	--	10.83	439.98
		8/17/2020	--	9.19	--	9.19	441.62
		11/16/2020	--	10.02	--	10.02	440.79
MW-12	449.42	7/31/2019	--	10.93	--	10.93	438.49
		11/19/2019	--	10.87	--	10.87	438.55
		8/17/2020	--	10.26	--	10.26	439.16
		11/16/2020	--	10.52	--	10.52	438.90

**Table 3. Remedial Investigation Groundwater Elevations**

Project No. 180357, Lynnwood, Washington

Monitoring Well	TOC Elevation	Date	DTNAPL	DTW	LNAPL Thickness (feet)	Water Table (ft BTOC) <sup>1</sup>	Groundwater Elevation
MW-13	450.57	7/31/2019	--	13.67	--	13.67	436.90
		11/19/2019	--	13.83	--	13.83	436.74
		8/17/2020	--	12.76	--	12.76	437.81
		11/16/2020	--	13.28	--	13.28	437.29
MW-14	450.85	7/31/2019	--	14.64	--	14.64	436.21
		11/19/2019	--	14.73	--	14.73	436.12
		8/17/2020	--	13.65	--	13.65	437.20
		11/16/2020	--	14.14	--	14.14	436.71
MW-15	451.16	7/31/2019	12.40	12.42	0.02	12.40	438.76
		11/19/2019	13.97	14.15	0.18	14.01	437.15
		8/17/2020	12.27	12.96	0.69	12.44	438.72
		11/16/2020	13.22	13.88	0.66	13.38	437.78
MW-16	450.6	7/31/2019	--	9.15	--	9.15	441.45
		11/19/2019	--	10.58	--	10.58	440.02
		8/17/2020	--	8.40	--	8.40	442.20
		11/16/2020	--	9.69	--	9.69	440.91
MW-17	450.18	7/31/2019	--	8.47	--	8.47	441.71
		11/19/2019	--	9.70	--	9.70	440.48
		8/17/2020	--	7.90	--	7.90	442.28
		11/16/2020	--	8.83	--	8.83	441.35
MW-18	449.28	7/31/2019	--	12.08	--	12.08	437.20
		11/19/2019	--	12.96	--	12.96	436.32
		8/17/2020	--	11.04	--	11.04	438.24
		11/16/2020	--	12.07	--	12.07	437.21
MW-19	446.02	7/31/2019	--	11.54	--	11.54	434.48
		11/19/2019	--	10.31	--	10.31	435.71
		8/17/2020	--	9.76	--	9.76	436.26
		11/16/2020	--	9.67	--	9.67	436.35
MW-20	450.59	8/17/2020	--	8.54	--	8.54	442.05
		11/16/2020	--	9.32	--	9.32	441.27
MW-21	450.603	8/17/2020	--	11.41	--	11.41	439.19
		11/16/2020	--	10.16	--	10.16	440.44
MW-22	451.254	8/17/2020	--	11.38	--	11.38	439.87
		11/16/2020	--	12.31	--	12.31	438.94
MW-23	451.079	8/17/2020	--	13.16	--	13.16	437.92
		11/16/2020	--	13.90	--	13.90	437.18
MW-24	449.094	8/17/2020	--	12.31	--	12.31	436.78
		11/16/2020	--	12.02	--	12.02	437.07
MW-25	449.701	8/17/2020	--	9.87	--	9.87	439.83
		11/16/2020	--	11.43	--	11.43	438.27
MW-26	449.13	8/17/2020	--	14.92	--	14.92	434.21
		11/16/2020	--	15.73	--	15.73	433.40
MW-27	447.27	8/17/2020	--	DRY	--	--	--
		11/16/2020	--	15.94	--	15.94	431.33
MW-28	--	8/17/2020	--	DRY	--	--	--
		11/16/2020	--	DRY	--	--	--

**Notes**

TOC = Top of Casing elevation in ft above mean sea level (NAVD88); NAPL = Non-aqueous phase liquid

DTNAPL = Depth to NAPL below TOC (ft); DTW = Depth to water below TOC (ft); BTOC = below TOC

<sup>1</sup> - In wells where NAPL is present, the depth to water table was calculated as  
 Water Table = DTW + 0.76\*(DTNAPL-DTW)

**Table 4. Remedial Investigation Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Analyte	Unit	MTCA Method A Cleanup Level	Location	CMW-1	CMW-4	MW-1				MW-2				MW-4	MW-6			
			Date	11/17/2020	11/17/2020	08/01/2019	11/20/2019	08/18/2020	11/18/2020	08/01/2019	11/20/2019	08/17/2020	11/17/2020	08/18/2020	07/31/2019	11/20/2019	08/17/2020	11/16/2020
			Sample	111720	111720	080119	112019	081820	111820	080119	112019	081720	111720	081820	073119	112019	081720	111620
<b>Total Petroleum Hydrocarbons (TPHs)</b>																		
Gasoline Range Organics	ug/L	800	< 100 U	< 100 U	<b>24000</b>	<b>44000</b>	<b>14000</b>	<b>31000</b>	<b>1600</b>	<b>4600</b>	<b>770</b>	<b>4100</b>	<b>170000</b>	< 100 U	< 100 U	< 100 U	< 100 U	
Diesel Range Organics	ug/L	500	< 50 U	< 50 U	<b>2100 X</b>	<b>3200 X</b>	<b>2100 X</b>	<b>1800 X</b>	<b>790 X</b>	<b>2200 X</b>	<b>660 X</b>	<b>1300 X</b>	<b>4500 X</b>	<b>68 X</b>	< 50 U	<b>170 X</b>	< 50 U	
Motor Oil Range Organics	ug/L	500	< 250 U	< 250 U	<b>1000 X</b>	<b>570 X</b>	<b>1100 X</b>	<b>810 X</b>	< 250 U	<b>260 X</b>	<b>310 X</b>	< 250 U	<b>1000 X</b>	< 250 U	< 250 U	< 250 U	< 250 U	
Diesel and Oil Extended Range Organics	ug/L	500	< 250 U	< 250 U	<b>3100 X</b>	<b>3770 X</b>	<b>3200 X</b>	<b>2610 X</b>	<b>790 X</b>	<b>2460 X</b>	<b>970 X</b>	<b>1300 X</b>	<b>5500 X</b>	<b>68 X</b>	< 250 U	<b>170 X</b>	< 250 U	
<b>BTEX</b>																		
Benzene	ug/L	5	< 0.35 U	< 0.35 U	<b>4200</b>	<b>6700</b>	<b>2200</b>	<b>5600</b>	<b>13</b>	<b>30</b>	<b>4.5</b>	<b>29</b>	<b>6000</b>	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	
Toluene	ug/L	1000	< 1 U	< 1 U	<b>410</b>	<b>1500</b>	<b>180</b>	<b>740</b>	<b>2.2</b>	<b>6.5</b>	< 1 U	<b>7.8</b>	<b>21000</b>	< 1 U	< 1 U	< 1 U	< 1 U	
Ethylbenzene	ug/L	700	< 1 U	< 1 U	<b>520</b>	<b>860</b>	<b>300</b>	<b>720</b>	<b>6.5</b>	<b>28</b>	<b>2.8</b>	<b>49</b>	<b>2300</b>	< 1 U	< 1 U	< 1 U	< 1 U	
Total Xylenes	ug/L	1000	< 2 U	< 2 U	<b>1650</b>	<b>3680</b>	<b>750</b>	<b>2780</b>	<b>7.4</b>	<b>23.9</b>	<b>2.1</b>	<b>24.4</b>	<b>14100</b>	< 2 U	< 2 U	< 2 U	< 2 U	
<b>Metals</b>																		
Lead	ug/L	15	--	--	< 1 UJ	< 1 U	--	--	< 1 UJ	< 1 U	--	--	--	< 1 UJ	< 1 U	--	--	
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>																		
Naphthalene	ug/L	160	< 1 U	< 1 U	<b>130</b>	<b>210</b>	<b>84</b>	<b>200</b>	<b>33</b>	<b>150</b>	<b>15</b>	<b>150</b>	<b>500</b>	< 1 U	< 1 U	< 1 U	< 1 U	
<b>Volatile Organic Compounds (VOCs)</b>																		
1,1,1-Trichloroethane	ug/L	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1-Dichloroethane	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	< 1 U	< 100 U	--	--	< 1 U	< 1 U	--	--	--	< 1 U	< 1 U	--	--	
1,2-Dichloroethane (EDC)	ug/L	5	--	--	< 1 U	< 100 U	--	--	< 1 U	< 1 U	--	--	--	< 1 U	< 1 U	--	--	
Chloroethane	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
m,p-Xylenes	ug/L		< 2 U	< 2 U	<b>1300</b>	<b>2800</b>	--	--	<b>5.6</b>	<b>19</b>	--	--	--	< 2 U	< 2 U	--	--	
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	< 1 U	< 100 U	--	--	< 1 U	< 1 U	--	--	--	< 1 U	< 1 U	--	--	
Methylene Chloride	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o-Xylene	ug/L		< 1 U	< 1 U	<b>350</b>	<b>880</b>	--	--	<b>1.8</b>	<b>4.9</b>	--	--	--	< 1 U	< 1 U	--	--	
Tetrachloroethene (PCE)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
cis-1,2-Dichloroethene (cDCE)	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
trans-1,2-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trichloroethene (TCE)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Vinyl Chloride	ug/L	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**Notes**

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

"--" - Sample not analyzed for this analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

ug/L = micrograms per liter

**Table 4. Remedial Investigation Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Location			MW-7				MW-8	MW-9				MW-10			
Date			07/31/2019	11/19/2019	08/17/2020	11/17/2020	08/18/2020	08/01/2019	11/20/2019	08/18/2020	11/16/2020	08/01/2019	11/20/2019	08/18/2020	11/17/2020
Sample			073119	111920	081720	111720	081820	080119	112019	081820	111620	080119	112019	081820	111720
Analyte	Unit	MTCA Method A Cleanup Level													
<b>Total Petroleum Hydrocarbons (TPHs)</b>															
Gasoline Range Organics	ug/L	800	< 100 U	< 100 U	< 100 U	< 100 U	130000	< 100 U	560	< 100 U	< 100 U	19000	21000	5100	12000
Diesel Range Organics	ug/L	500	83 X	< 50 U	110 X	< 50 U	3200 X	88 X	290 X	80 X	< 54 U	1900 X	3900 X	1100 X	1400 X
Motor Oil Range Organics	ug/L	500	< 250 U	< 250 U	< 260 U	< 250 U	550 X	< 250 U	< 250 U	< 250 U	< 250 U	260 X	340 X	360 X	< 250 U
Diesel and Oil Extended Range Organics	ug/L	500	83 X	< 250 U	110 X	< 250 U	3750 X	88 X	290 X	80 X	< 250 U	2160 X	4240 X	1460 X	1400 X
<b>BTEX</b>															
Benzene	ug/L	5	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	4800	< 0.35 U	6.4	< 0.35 U	< 0.35 U	2400	2800	490	1800
Toluene	ug/L	1000	< 1 U	2.7	< 1 U	< 1 U	18000	< 1 U	< 1 U	< 1 U	< 1 U	44	< 100 U	< 10 U	31
Ethylbenzene	ug/L	700	< 1 U	1.6	< 1 U	< 1 U	1600	< 1 U	6.6	< 1 U	< 1 U	670	1000	200	630
Total Xylenes	ug/L	1000	< 2 U	8.8	< 2 U	< 2 U	10300	< 2 U	3.3	< 2 U	< 2 U	1102.7	1500	240	620
<b>Metals</b>															
Lead	ug/L	15	< 1 UJ	< 1 U	--	--	--	< 1 UJ	< 1 U	--	--	< 1 UJ	< 1 U	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>															
Naphthalene	ug/L	160	< 1 U	< 1 U	< 1 U	< 1 U	400	< 1 U	< 1 U	< 1 U	< 1 U	160	270	60	220
<b>Volatile Organic Compounds (VOCs)</b>															
1,1,1-Trichloroethane	ug/L	200	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/L	0.01	< 1 U	< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 100 U	--	--
1,2-Dichloroethane (EDC)	ug/L	5	< 1 U	< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 100 U	--	--
Chloroethane	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylenes	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	ug/L	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--

**Notes**

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ug/L = micrograms per liter

**Table 4. Remedial Investigation Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Location			MW-11				MW-12				MW-13				MW-14			
			07/31/2019	11/19/2019	08/17/2020	11/17/2020	08/01/2019	11/20/2019	08/17/2020	11/16/2020	07/31/2019	11/20/2019	08/17/2020	11/17/2020	07/31/2019	11/20/2019	08/18/2020	11/18/2020
Date			073119	111919	081720	111720	080119	112019	081720	111620	073119	112019	081720	111720	073119	112019	081820	111820
Sample			073119	111919	081720	111720	080119	112019	081720	111620	073119	112019	081720	111720	073119	112019	081820	111820
Analyte	Unit	MTCA Method A Cleanup Level																
Total Petroleum Hydrocarbons (TPHs)																		
Gasoline Range Organics	ug/L	800	13000	20000	27000	5400	240	540	230	410	1400	1800	420	1200	7500	11000	5000	6400
Diesel Range Organics	ug/L	500	1100 X	2400 X	1600 X	720 X	310 X	370 X	240 X	230 X	530 X	780 X	320 X	490 X	1200 X	1600 X	570 X	780 X
Motor Oil Range Organics	ug/L	500	< 250 U	310 X	260 X	< 250 U	260 X	330 X	300 X	< 250 U	290 X							
Diesel and Oil Extended Range Organics	ug/L	500	1100 X	2710 X	1860 X	720 X	310 X	370 X	240 X	230 X	530 X	780 X	320 X	750 X	1530 X	1900 X	570 X	1070 X
BTEX																		
Benzene	ug/L	5	320	270	330	160	0.59	1.1	< 0.35 U	0.65	7.5	4	0.75	1.5	2400	2700	1200	2000
Toluene	ug/L	1000	1800	1500	2200	290	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	32	< 100 U	9.8	19
Ethylbenzene	ug/L	700	410	690	790	220	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	130	< 100 U	32	31
Total Xylenes	ug/L	1000	1400	2580	3400	400	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	90	< 200 U	22.9	< 20 U
Metals																		
Lead	ug/L	15	3.49 J	1.85	--	--	< 1 UJ	< 1 U	--	--	< 1 UJ	< 1 U	--	--	< 1 UJ	< 1 U	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																		
Naphthalene	ug/L	160	42	130	140	110	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	50	< 100 U	31	46
Volatile Organic Compounds (VOCs)																		
1,1,1-Trichloroethane	ug/L	200	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	--	--
1,1-Dichloroethane	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	--	--
1,1-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	--	--
1,2-Dibromoethane (EDB)	ug/L	0.01	< 1 U	< 100 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 100 U	--	--
1,2-Dichloroethane (EDC)	ug/L	5	< 1 U	< 100 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	--	--
Chloroethane	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	--	--
m,p-Xylenes	ug/L		1000	2100	--	--	< 2 U	--	--	< 2 U	< 2 U	< 2 U	--	< 2 U	72	< 200 U	19	< 20 U
Methyl tert-butyl ether (MTBE)	ug/L	20	< 1 U	< 100 U	--	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 100 U	--	--
Methylene Chloride	ug/L	5	--	--	--	--	--	--	--	--	< 5 U	< 5 U	< 5 U	--	< 5 U	< 500 U	--	--
o-Xylene	ug/L		400	480	--	--	< 1 U	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	18	< 100 U	< 1 U	< 10 U
Tetrachloroethene (PCE)	ug/L	5	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	2.1	< 10 U
cis-1,2-Dichloroethene (cDCE)	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	< 1 U	< 10 U
trans-1,2-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	< 1 U	< 10 U
Trichloroethene (TCE)	ug/L	5	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 100 U	< 1 U	< 10 U
Vinyl Chloride	ug/L	0.2	--	--	--	--	--	--	--	--	< 0.2 U	< 0.2 U	< 0.2 U	--	2.7	< 20 U	0.9	< 2 U

**Notes**

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**Table 4. Remedial Investigation Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Location			MW-16				MW-17				MW-18				MW-19				MW-20		MW-21	
Date			07/31/2019	11/19/2019	08/17/2020	11/16/2020	07/31/2019	11/19/2019	08/17/2020	11/17/2020	07/31/2019	11/19/2019	08/18/2020	11/16/2020	07/31/2019	11/20/2019	08/18/2020	11/17/2020	08/17/2020	11/17/2020	08/17/2020	11/17/2020
Sample			073119	111919	081720	111620	073119	111919	081720	111720	073119	111919	081820	111620	073119	112019	081820	111720	081720	111720	081720	111720
Analyte	Unit	MTCA Method A Cleanup Level																				
<b>Total Petroleum Hydrocarbons (TPHs)</b>																						
Gasoline Range Organics	ug/L	800	< 100 U	< 100 U	< 100 U	< 100 U	<b>1800</b>	<b>1100</b>	<b>550</b>	<b>1200</b>	< 100 U	<b>1300</b>	< 100 U	<b>340</b>	< 100 U	< 100 U	< 100 U	< 100 U	<b>120</b>	< 100 U	<b>7400</b>	<b>6600</b>
Diesel Range Organics	ug/L	500	<b>84 X</b>	< 50 U	<b>130 X</b>	< 50 U	<b>320 X</b>	<b>560 X</b>	<b>270 X</b>	<b>550 X</b>	<b>55 X</b>	<b>260 X</b>	< 50 U	<b>59 X</b>	< 50 U	< 50 U	< 50 U	< 50 U	<b>180 X</b>	< 50 U	<b>3200 X</b>	<b>2800 X</b>
Motor Oil Range Organics	ug/L	500	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	<b>260 X</b>	<b>360 X</b>
Diesel and Oil Extended Range Organics	ug/L	500	<b>84 X</b>	< 250 U	<b>130 X</b>	< 250 U	<b>320 X</b>	<b>560 X</b>	<b>270 X</b>	<b>550 X</b>	<b>55 X</b>	<b>260 X</b>	< 250 U	<b>59 X</b>	< 250 U	< 250 U	< 250 U	< 250 U	<b>180 X</b>	< 250 U	<b>3460 X</b>	<b>3160 X</b>
<b>BTEX</b>																						
Benzene	ug/L	5	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	<b>4.2</b>	<b>1.1</b>	<b>5.7</b>	<b>1</b>	<b>240</b>	<b>1.2</b>	<b>61</b>	< 0.35 U	< 0.35 U	<b>21</b>	<b>25</b>				
Toluene	ug/L	1000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	<b>2.8</b>	< 1 U	<b>6.9</b>	< 1 U	<b>8.2</b>	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	<b>12</b>
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	<b>14</b>	< 1 U	<b>2.1</b>	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	<b>400</b>	<b>620</b>
Total Xylenes	ug/L	1000	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	<b>6.3</b>	< 2 U	<b>16</b>	< 2 U	<b>65</b>	< 2 U	<b>11.9</b>	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	<b>48</b>	<b>43</b>
<b>Metals</b>																						
Lead	ug/L	15	< 1 UJ	<b>1.02</b>	--	--	< 1 UJ	< 1 U	--	--	< 1 UJ	< 1 U	--	--	< 1 UJ	< 1 U	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>																						
Naphthalene	ug/L	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	<b>1.6</b>	< 1 U	<b>1.9</b>	< 1 U	<b>5.2</b>	< 1 U	<b>2.4</b>	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	<b>470</b>	<b>440</b>
<b>Volatile Organic Compounds (VOCs)</b>																						
1,1,1-Trichloroethane	ug/L	200	--	--	--	--	--	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
1,1-Dichloroethane	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
1,1-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/L	0.01	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
Chloroethane	ug/L		--	--	--	--	--	--	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
m,p-Xylenes	ug/L		< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	<b>4.2</b>	< 2 U	<b>16</b>	< 2 U	<b>48</b>	< 2 U	<b>9.8</b>	< 2 U	< 2 U	< 1 U	< 1 U	--	--	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	< 1 U	< 1 U	--	--	--	--	--	--
Methylene Chloride	ug/L	5	--	--	--	--	--	--	--	--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	--	--	--	--	--	--
o-Xylene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	<b>2.1</b>	< 1 U	< 1 U	< 1 U	<b>17</b>	< 1 U	<b>2.1</b>	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--
Tetrachloroethene (PCE)	ug/L	5	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U	<b>17</b>	<b>12</b>	<b>13</b>	<b>9.3</b>	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--
trans-1,2-Dichloroethene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--
Trichloroethene (TCE)	ug/L	5	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U	<b>1</b>	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--
Vinyl Chloride	ug/L	0.2	< 0.2 U	< 0.5 U	< 0.2 U	< 0.2 U	--	--	--	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	--	--	--	--

**Notes**

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

"--" - Sample not analyzed for this analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

ug/L = micrograms per liter

**Table 4. Remedial Investigation Groundwater Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Location			MW-22		MW-23		MW-24		MW-25		MW-26		MW-27
Date			08/17/2020	11/16/2020	08/18/2020	11/18/2020	08/18/2020	11/17/2020	08/18/2020	11/16/2020	08/18/2020	11/16/2020	11/20/2020
Sample			081720	111620	081820	111820	081820	111720	081820	111620	081820	111620	112020
Analyte	Unit	MTCA Method A Cleanup Level											
<b>Total Petroleum Hydrocarbons (TPHs)</b>													
Gasoline Range Organics	ug/L	800	14000	24000	21000	27000	< 100 U						
Diesel Range Organics	ug/L	500	2500 X	3000 X	1900 X	2600 X	76 X	< 50 U	55 X	< 50 U	< 50 U	< 50 U	< 50 U
Motor Oil Range Organics	ug/L	500	< 250 U	410 X	< 250 U	390 X	< 250 U						
Diesel and Oil Extended Range Organics	ug/L	500	2500 X	3410 X	1900 X	2990 X	76 X	< 250 U	55 X	< 250 U	< 250 U	< 250 U	< 250 U
<b>BTEX</b>													
Benzene	ug/L	5	540	1000	3100	5300	< 0.35 U	< 0.35 U	< 0.35 U	0.53	< 0.35 U	< 0.35 U	< 0.35 U
Toluene	ug/L	1000	56	240	210	120	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	630	1300	400	640	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	1350	3880	900	930	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
<b>Metals</b>													
Lead	ug/L	15	--	--	--	--	--	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>													
Naphthalene	ug/L	160	220	390	110	170	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
<b>Volatile Organic Compounds (VOCs)</b>													
1,1,1-Trichloroethane	ug/L	200	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/L		--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/L	0.01	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	ug/L		--	--	--	--	--	--	--	--	--	--	--
m,p-Xylenes	ug/L		--	--	--	--	--	--	--	--	--	< 2 U	< 2 U
Methyl tert-butyl ether (MTBE)	ug/L	20	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	ug/L		--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
Tetrachloroethene (PCE)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	ug/L		--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	ug/L		--	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	ug/L	5	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	ug/L	0.2	--	--	--	--	--	--	--	--	--	--	--

**Notes**

**Bold - Analyte detected**

**Blue Shaded - Detected result exceeded screening level**

CULs with blank cells indicate no MTCA Method A cleanup level is available for that analyte.

"--" - Sample not analyzed for this analyte.

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

ug/L = micrograms per liter

**Table 5. Soil Gas Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	MTCA Method B Subslab Soil Gas SL <sup>(1)</sup>	GP-01		GP-02					GP-03					
			Location Date	07/25/2019	08/20/2020	07/25/2019	08/20/2020	11/20/2020	07/20/2021	12/16/2021	07/25/2019	08/20/2020	11/20/2020	07/20/2021	12/16/2021
			Sample	GP-01-072519	GP-01-082020	GP-02-072519	GP-02-082020	GP-02-112020	GP-02-072021	GP-02-121621	GP-03-072519	GP-03-082020	GP-03-112020	GP-03-072021	GP-03-121621
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>															
Benzene	µg/m <sup>3</sup>	11	<b>3.8</b>	< 1.1 U	<b>1.5</b>	< 1.1 U	< 1.1 U	<b>15</b>	<b>3.5</b>	<b>3.9</b>	<b>5.7</b>	< 2.7 U	<b>8</b>	< 1.9 U	
Toluene	µg/m <sup>3</sup>	76,000	<b>28</b>	< 64 U	<b>12</b>	< 62 U	< 64 U	<b>150</b>	< 100 U	<b>17</b>	< 170 U	< 160 U	< 110 U	< 110 U	
Ethylbenzene	µg/m <sup>3</sup>	15,000	<b>6</b>	< 1.5 U	<b>3.4</b>	<b>3.1</b>	<b>2.2</b>	<b>15</b>	< 2.3 U	<b>4.9</b>	<b>80</b>	< 3.6 U	<b>13</b>	< 2.6 U	
Total Xylenes	µg/m <sup>3</sup>	1,500	<b>32.9</b>	< 3 U	<b>18.3</b>	<b>16.7</b>	<b>12</b>	<b>80</b>	< 4.6 U	<b>27.1</b>	<b>382</b>	<b>10</b>	<b>65</b>	<b>9.5</b>	
Naphthalene	µg/m <sup>3</sup>	2.5	< 0.84 U	< 0.89 U	< 0.81 U	<b>1.2</b>	< 0.89 U	< 1.4 U	< 1.4 U	< 2 U	< 2.3 U	< 2.2 U	< 1.5 U	< 1.5 U	
C5 - C8 Aliphatic Hydrocarbons	µg/m <sup>3</sup>	--	<b>410</b>	<b>580</b>	<b>350</b>	<b>630</b>	<b>210</b>	<b>1,300</b>	< 400 U	<b>8,700</b>	<b>13,000</b>	<b>3,700</b>	<b>4,500 J</b>	<b>3,600 ve</b>	
C9 - C12 Aliphatic Hydrocarbons	µg/m <sup>3</sup>	--	<b>2,200</b>	<b>680</b>	<b>2,600</b>	<b>890</b>	<b>480</b>	<b>830</b>	<b>170</b>	<b>9,600</b>	<b>2,200</b>	<b>1,100</b>	<b>740</b>	<b>590</b>	
C9 - C10 Aromatic Hydrocarbons	µg/m <sup>3</sup>	--	< 80 U	< 85 U	< 77 U	< 82 U	< 85 U	< 140 U	< 130 U	< 190 U	<b>220</b>	< 210 U	< 140 U	< 150 U	
Total Petroleum Hydrocarbons <sup>(2)</sup>	µg/m <sup>3</sup>	1,500	<b>2,721</b>	<b>1,338</b>	<b>3,024</b>	<b>1,614</b>	<b>780</b>	<b>2,461</b>	<b>489</b>	<b>18,449</b>	<b>15,974</b>	<b>5,001</b>	<b>5,452 J</b>	<b>4,333</b>	
<b>Conventionals (%)</b>															
Carbon Dioxide	%		--	<b>24.6</b>	--	<b>20.0</b>	<b>27.6</b>	<b>22.8 J</b>	--	--	<b>22.8</b>	<b>30.3</b>	<b>25.0 J</b>	--	
Oxygen	%		--	<b>3.44</b>	--	<b>6.95</b>	<b>4.5</b>	<b>8.46 J</b>	--	--	<b>1.90</b>	<b>1.35</b>	<b>3.12 J</b>	--	
Methane	%		--	< 0.0500 U	--	< 0.0500 U	< 0.05 U	< 0.110 UJ	--	--	<b>0.157</b>	<b>0.168</b>	< 0.105 UJ	--	
Helium	%		--	< 0.6 U	--	< 0.6 U	< 0.6 U	< 0.6 U	--	--	< 0.6 U	< 0.6 U	< 0.6 U	--	

**Notes:**

(1) Model Toxics Control Act (MTCA) Method B Subslab Soil Gas Screening Levels (SLs), including the generic Total Petroleum Hydrocarbons (TPH) Screening Level.

(2) Total petroleum hydrocarbons (TPH) concentration is the sum total of volatile organic compounds and aliphatic and aromatic hydrocarbons; one-half of the laboratory reporting limit was used for non-detects.

(3) Soil gas probe screen was submerged during the December 2021 sampling event due to seasonally higher groundwater elevation.

**Bold - detected**

**Blue Shaded - Detected result exceeded generic MTCA Method B subslab soil gas screening level**

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

µg/m<sup>3</sup> - micrograms per cubic meter

% - percent

"--" - Sample not analyzed for this analyte.

SLs with blank cells indicate no MTCA Method B subslab soil gas screening level is available for that analyte.

**Table 5. Soil Gas Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Analyte	Unit	Location Date Sample	GP-04		GP-05			GP-06			SVS-01		SVS-02	
			07/25/2019	08/20/2020	11/20/2020	07/20/2021	12/16/2021	11/20/2020	07/20/2021	12/16/2021	07/25/2019	08/20/2020	07/25/2019	08/20/2020
			GP-04-072519	GP-04-082020	GP-05-112020	GP-05-072021	--	GP-06-112020	GP-06-072021	GP-06-121621	SVS-01-072519	SVS-01-082020	SVS-02-072519	SVS-02-082020
		MTCA Method B Subslab Soil Gas SL <sup>(1)</sup>												
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>														
Benzene	µg/m <sup>3</sup>	11	<b>1.2</b>	<b>1.7</b>	<b>7.1</b>	<b>13</b>	--	<b>2.7</b>	<b>2.4</b>	< 2.6 U	<b>2.2</b>	<b>17</b>	<b>3.3</b>	<b>1.8</b>
Toluene	µg/m <sup>3</sup>	76,000	<b>11</b>	< 68 U	< 810 U	< 170 U	--	< 64 U	< 100 U	< 150 U	<b>9.3</b>	< 160 U	<b>13</b>	< 64 U
Ethylbenzene	µg/m <sup>3</sup>	15,000	<b>3.4</b>	<b>5.1</b>	< 19 U	<b>29</b>	--	<b>5</b>	<b>6.8</b>	< 3.5 U	<b>2.6</b>	<b>7</b>	<b>2.9</b>	<b>5.8</b>
Total Xylenes	µg/m <sup>3</sup>	1,500	<b>18.7</b>	<b>28.3</b>	< 37 U	<b>158</b>	--	<b>25.8</b>	<b>38</b>	< 7 U	<b>14.4</b>	<b>57</b>	<b>14.2</b>	<b>31.3</b>
Naphthalene	µg/m <sup>3</sup>	2.5	< 0.84 U	< 0.94 U	< 11 U	< 2.4 U	--	< 0.89 U	<b>1.6</b>	< 2.1 U	< 0.81 U	< 2.2 U	< 0.81 U	< 0.89 U
C5 - C8 Aliphatic Hydrocarbons	µg/m <sup>3</sup>	--	<b>510</b>	<b>650</b>	<b>22,000</b>	<b>16,000 J</b>	--	<b>160</b>	<b>600</b>	< 610 U	<b>1,000</b>	<b>4,100</b>	<b>1,700</b>	<b>750</b>
C9 - C12 Aliphatic Hydrocarbons	µg/m <sup>3</sup>	--	<b>1,800</b>	<b>470</b>	<b>5,000</b>	<b>2,300</b>	--	<b>390</b>	<b>2,300</b>	<b>510</b>	<b>1,300</b>	<b>6,700</b>	<b>1,100</b>	<b>670</b>
C9 - C10 Aromatic Hydrocarbons	µg/m <sup>3</sup>	--	<b>100</b>	< 90 U	< 1100 U	< 230 U	--	< 85 U	<b>250</b>	< 200 U	<b>78</b>	< 210 U	<b>100</b>	< 85 U
Total Petroleum Hydrocarbons <sup>(2)</sup>	µg/m <sup>3</sup>	1,500	<b>2,445</b>	<b>1,235</b>	<b>28,005</b>	<b>18,701 J</b>	--	<b>658</b>	<b>3,249</b>	<b>998</b>	<b>2,407</b>	<b>11,067</b>	<b>2,934</b>	<b>1,534</b>
<b>Conventionals (%)</b>														
Carbon Dioxide	%		--	<b>8.53</b>	<b>29.6</b>	<b>22.3 J</b>	--	<b>17.1</b>	<b>18.4 J</b>	--	--	<b>0.121</b>	--	<b>0.0698</b>
Oxygen	%		--	<b>15.9</b>	<b>1.27</b>	<b>5.00 J</b>	--	<b>8.16</b>	<b>9.22 J</b>	--	--	<b>21.6</b>	--	<b>22.9</b>
Methane	%		--	< 0.0500 U	<b>0.515</b>	<b>0.485 J</b>	--	< 0.05 U	< 0.0950 UJ	--	--	< 0.0500 U	--	< 0.0500 U
Helium	%		--	< 0.6 U	< 0.6 U	< 0.6 U	--	< 0.6 U	< 0.6 U	--	--	< 0.6 U	--	< 0.6 U

**Notes:**

(1) Model Toxics Control Act (MTCA) Method B Subslab Soil Gas Screening Levels (SLs), including the generic Total Petroleum Hydrocarbons (TPH) Screening Level.

(2) Total petroleum hydrocarbons (TPH) concentration is the sum total of volatile organic compounds and aliphatic and aromatic hydrocarbons; one-half of the laboratory reporting limit was used for non-detects.

(3) Soil gas probe screen was submerged during the December 2021 sampling event due to seasonally higher groundwater elevation.

**Bold - detected**

**Blue Shaded - Detected result exceeded generic MTCA Method B subslab soil gas screening level**

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

µg/m<sup>3</sup> - micrograms per cubic meter

% - percent

"--" - Sample not analyzed for this analyte.

SLs with blank cells indicate no MTCA Method B subslab soil gas screening level is available for that analyte.

**Table 6. Crawlspace and Ambient Air Analytical Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

July 2021 Results						
Location	Ambient	Crawlspace				
Area	Outdoor, Upwind	East End of Crawlspace		Central Portion of Crawlspace		
Sample Type	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	
Date	07/20/2021	07/20/2021		07/20/2021		
Sample ID	BA-01-072021	IA-01-072021	--	IA-02-072021	--	
Analyte	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)					
Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m <sup>3</sup> )						
Benzene	0.32	< 0.32 U	<b>1.2</b>	<b>1.2</b>	< 0.32 U	ND
Toluene	2300	< 19 U	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	< 0.87 U	<b>2.16</b>	<b>2.16</b>	< 0.87 U	ND
Naphthalene	0.073	< 0.057 U	<b>0.13</b>	<b>0.13</b>	< 0.057 U	ND
C5 - C8 Aliphatic Hydrocarbons	--	<b>82</b>	<b>260</b>	<b>178</b>	<b>110</b>	<b>28</b>
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	<b>56</b>	<b>56</b>	< 25 U	ND
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>118</b>	<b>342</b>	<b>234</b>	<b>146</b>	<b>28</b>

December 2021 Results									
Location	Ambient			Crawlspace					
Area	Outdoor, Upwind	Outdoor, Crosswind	Unit #125 (West End of Crawlspace)		Unit #127 (Central West Portion of Crawlspace)		Unit #129 (Central East Portion of Crawlspace)		
Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	
Date	12/15/2021	12/15/2021	12/15/21		12/15/21		12/15/21		
Sample ID	AMB-1-121521	AMB-2-121521	CS-125-121521	--	CS-127-121521	--	CS-129-121521	--	
Analyte	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)								
Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m <sup>3</sup> )									
Benzene	0.32	<b>0.43</b>	<b>0.45</b>	<b>0.56</b>	<b>0.13</b>	<b>0.49</b>	<b>0.06</b>	<b>0.49</b>	<b>0.06</b>
Toluene	2300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>0.56</b>	<b>0.56</b>	< 0.43 U	ND	<b>0.54</b>	<b>0.54</b>
Total Xylenes	46	<b>1.0</b>	<b>1.2</b>	<b>3.3</b>	<b>2.25</b>	<b>1.5</b>	<b>0.5</b>	<b>3.0</b>	<b>1.97</b>
Naphthalene	0.073	<b>0.068 J</b>	< 0.057 J	<b>0.099 J</b>	<b>0.031 J</b>	<b>0.073 J</b>	<b>0.005 J</b>	<b>0.11</b>	<b>0.042 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	< 75 U	ND	< 75 U	ND	< 75 U	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>76</b>	<b>3.0</b>	<b>74</b>	<b>0.6</b>	<b>76</b>	<b>2.6</b>

**Notes:**

(1) Net results were calculated by subtracting the upwind ambient air result from the crawlspace result. If the reported crawlspace result was less than the upwind ambient air concentration or if a certain analyte was not detected in either the crawlspace sample and the ambient air result, the net value is shown as ND and summed as zero in the Total Petroleum Hydrocarbon calculation.

(2) Model Toxic Control Act (MTCA) Method B Indoor Air Cleanup Levels (CULs), including the generic Total Petroleum Hydrocarbons CUL.

(3) Total petroleum hydrocarbon (TPH) concentration is the sum total of volatile organic compounds and aliphatic and aromatic hydrocarbons; one-half of the laboratory reporting limit was used for non-detects in reported results. Non-detects in net results (ND) were summed as zero.

**Bold results indicate analyte was detected.**

**Blue-highlighted values exceed the generic MTCA Method B Indoor Air Cleanup Levels for Unrestricted Land Use.**

µg/m<sup>3</sup> = micrograms per cubic meter

-- = not applicable

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

**Table 7. December 2021 - Vapor Intrusion Assessment Results**

DRAFT

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Chemical Name	Location/Unit	Ambient		Unit #125					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-121521	AMB-2-121521	CS-125-121521	--	IA-125-1-121521	--	IA-125-2-121521	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.43</b>	<b>0.45</b>	<b>0.56</b>	<b>0.13</b>	<b>0.41</b>	ND	<b>0.39</b>	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>0.56</b>	<b>0.56</b>	<b>0.63</b>	<b>0.63</b>	<b>0.59</b>	<b>0.59</b>
Total Xylenes	46	<b>1.0</b>	<b>1.2</b>	<b>3.3</b>	<b>2.25</b>	<b>2.0</b>	<b>1.0</b>	<b>2.0</b>	<b>1.0</b>
Naphthalene	0.074	<b>0.068 J</b>	< 0.057 UJ	<b>0.099 J</b>	<b>0.031 J</b>	<b>0.33</b>	<b>0.26 J</b>	<b>0.39</b>	<b>0.32 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	< 75 U	ND	< 75 U	ND	<b>75</b>	<b>75</b>
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>71</b>	<b>71</b>	<b>74</b>	<b>74</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>76</b>	<b>3.0</b>	<b>134</b>	<b>73</b>	<b>174</b>	<b>151</b>

Chemical Name	Location/Unit	Ambient		Unit #127					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-121521	AMB-2-121521	CS-127-121521	--	IA-127-1-121521	--	IA-127-2-121521	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.43</b>	<b>0.45</b>	<b>0.49</b>	<b>0.06</b>	<b>0.39</b>	ND	<b>0.37</b>	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	< 0.43 U	ND	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	<b>1.0</b>	<b>1.2</b>	<b>1.5</b>	<b>0.5</b>	< 0.87 U	ND	< 0.87 U	ND
Naphthalene	0.074	<b>0.068 J</b>	< 0.057 UJ	<b>0.073 J</b>	<b>0.005 J</b>	<b>0.14</b>	<b>0.072 J</b>	<b>0.16</b>	<b>0.092 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	< 75 U	ND	< 74 U	ND	< 74 U	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>34</b>	<b>34</b>	<b>43</b>	<b>43</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>74</b>	<b>0.6</b>	<b>94</b>	<b>34</b>	<b>103</b>	<b>43</b>

**Table 7. December 2021 - Vapor Intrusion Assessment Results**

DRAFT

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Chemical Name	Location/Unit	Ambient		Unit #129					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-121521	AMB-2-121521	CS-129-121521	--	IA-129-1-121521	--	IA-129-2-121521	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.43</b>	<b>0.45</b>	<b>0.49</b>	<b>0.06</b>	<b>0.46</b>	<b>0.03</b>	<b>0.48</b>	<b>0.05</b>
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>0.54</b>	<b>0.54</b>	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	<b>1.0</b>	<b>1.2</b>	<b>3.0</b>	<b>1.97</b>	<b>1.6</b>	<b>0.57</b>	<b>1.5</b>	<b>0.5</b>
Naphthalene	0.074	<b>0.068 J</b>	< 0.057 UJ	<b>0.11</b>	<b>0.042 J</b>	<b>0.67</b>	<b>0.60 J</b>	<b>0.44</b>	<b>0.37 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	< 75 U	ND	<b>170</b>	<b>170</b>	<b>130</b>	<b>130</b>
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>130</b>	<b>130</b>	<b>95</b>	<b>95</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>76</b>	<b>2.6</b>	<b>325</b>	<b>301</b>	<b>250</b>	<b>226</b>

Chemical Name	Location/Unit	Ambient		Unit #131					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Average Crawlspace Results		Living Room			
	Sample Type	Background, Reported	Background, Reported	CS, Average, Reported	CS, Average, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-121521	AMB-2-121521	--	-	IA-131-1-121521	--	IA-FD-121521	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.43</b>	<b>0.45</b>	<b>0.51</b>	<b>0.08</b>	<b>1.5</b>	<b>1.1</b>	<b>1.5</b>	<b>1.1</b>
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>0.44</b>	<b>0.44</b>	<b>0.57</b>	<b>0.57</b>	<b>0.58</b>	<b>0.58</b>
Total Xylenes	46	<b>1.0</b>	<b>1.2</b>	<b>2.6</b>	<b>1.6</b>	<b>2.3</b>	<b>1.3</b>	<b>2.4</b>	<b>1.4</b>
Naphthalene	0.074	<b>0.068 J</b>	< 0.057 UJ	<b>0.094 J</b>	<b>0.026 J</b>	<b>0.40</b>	<b>0.33 J</b>	<b>0.42</b>	<b>0.35 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	< 75 U	ND	<b>110</b>	<b>110</b>	<b>120</b>	<b>120</b>
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>34</b>	<b>34</b>	<b>39</b>	<b>39</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>76</b>	<b>2.1</b>	<b>171</b>	<b>147</b>	<b>186</b>	<b>162</b>

**Notes**

(1) Adjusted results were calculated by subtracting the upwind ambient air result from the crawlspace or indoor air result. If the reported crawlspace or indoor air result was less than the upwind ambient air concentration or if a certain analyte was not detected in either the crawlspace or indoor air sample and the ambient air result, the net value is shown as ND and summed as zero in the Total Petroleum Hydrocarbon calculation.

(2) Model Toxic Control Act (MTCA) Method B Indoor Air Cleanup Levels (CULs), including the generic Total Petroleum Hydrocarbons CUL.

(3) The concentration for TPH was calculated as the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gas-range VOCs in accordance with Ecology guidance (2022). For soil gas samples and ambient air samples where the aliphatic or aromatic hydrocarbons were not detected, the TPH concentration was summed using one-half the reporting limit for individual compounds. For crawlspace and indoor air samples, if an individual compound was not detected in either the crawlspace or indoor sample and also not detected in the associated ambient sample, the TPH concentration was summed using zero for non-detected individual compounds.

**Blue results indicate analyte was detected.**

**Blue-highlighted values exceed the MTCA Method B Indoor Air Cleanup Levels for Unrestricted Land Use; only ambient air, net crawlspace air, and net indoor air values are screened against the MTCA Method B Indoor Air Cleanup Levels.**

µg/m<sup>3</sup> = micrograms per cubic meter

-- = not applicable

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

E - Result exceeded calibration range. Result usable for qualitative analysis of analyte presence, but numeric value should not be included in quantitative analysis.

**Table 8. November 2022 - Vapor Intrusion Assessment Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	Location/Unit		Ambient		Unit #125				
		Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
		Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
		Sample ID	AMB-1-111622	AMB-2-111622	CS-125-111622	--	IA-125-1-111622	--	IA-125-2-111622	--
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>										
Benzene	0.32	0.70	0.69	0.76	0.06	0.62	ND	0.61	ND	
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND	
Ethylbenzene	460	< 0.43 U	< 0.43 U	0.90	0.90	0.50	0.50	0.48	0.48	
Total Xylenes	46	1.1	1.1	4.70	3.6	2.61	ND	2.06	ND	
Naphthalene	0.074	0.057 J	< 0.047 UJ	0.079 J	0.022	0.12	0.063	0.14	0.083	
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	2,200	2,200	77	77	85	85	
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	35	35	140	140	130	130	
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND	
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	74	74	2,263	2,240	243	218	240	216	

Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	Location/Unit		Ambient		Unit #127				
		Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
		Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
		Sample ID	AMB-1-111622	AMB-2-111622	CS-127-111622	--	IA-127-1-111622	--	IA-127-2-111622	--
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>										
Benzene	0.32	0.70	0.69	0.63	ND	0.47	ND	0.46	ND	
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND	
Ethylbenzene	460	< 0.43 U	< 0.43 U	0.55	0.55	< 0.43 U	ND	< 0.43 U	ND	
Total Xylenes	46	1.1	1.1	2.83	1.73	1.56	0.46	0.97	ND	
Naphthalene	0.074	0.057 J	< 0.047 UJ	0.42	0.36	0.079	0.022	0.079	0.022	
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	750	750	< 75 U	ND	< 75 U	ND	
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	38	38	41	41	
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND	
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	74	74	789	753	100	38	102	41	

**Table 8. November 2022 - Vapor Intrusion Assessment Results**

DRAFT

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	Location/Unit		Ambient		Unit #129				
		Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
		Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
		Sample ID	AMB-1-111622	AMB-2-111622	CS-129-111622	--	IA-129-1-111622	--	IA-129-2-111622	--
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>										
Benzene	0.32	<b>0.70</b>	<b>0.69</b>	<b>0.71</b>	<b>0.01</b>	<b>0.51</b>	ND	<b>0.53</b>	ND	
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND	
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>0.6</b>	<b>0.6</b>	< 0.43 U	ND	< 0.43 U	ND	
Total Xylenes	46	<b>1.1</b>	<b>1.1</b>	<b>3.1</b>	<b>2.0</b>	<b>1.0</b>	ND	<b>0.89</b>	ND	
Naphthalene	0.074	<b>0.057 J</b>	< 0.047 UJ	<b>0.047 J</b>	ND	<b>0.23</b>	<b>0.17</b>	<b>0.13</b>	<b>0.073</b>	
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	<b>1,500</b>	<b>1,500</b>	<b>94</b>	<b>94</b>	<b>76</b>	<b>76</b>	
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>62</b>	<b>62</b>	<b>26</b>	<b>26</b>	
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND	
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>1,539</b>	<b>1,503</b>	<b>180</b>	<b>156</b>	<b>126</b>	<b>102</b>	

Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	Location/Unit		Ambient		Unit #131				
		Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room			
		Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
		Sample ID	AMB-1-111622	AMB-2-111622	CS-131-111622	--	IA-131-1-111622	--	IA-FD-111622	--
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>										
Benzene	0.32	<b>0.70</b>	<b>0.69</b>	<b>0.62</b>	ND	<b>0.87</b>	<b>0.17</b>	<b>0.88</b>	<b>0.18</b>	
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND	
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>0.59</b>	<b>0.59</b>	<b>0.46</b>	<b>0.46</b>	<b>0.46</b>	<b>0.46</b>	
Total Xylenes	46	<b>1.1</b>	<b>1.1</b>	<b>3.21</b>	<b>2.11</b>	<b>2.9</b>	<b>1.81</b>	<b>1.9</b>	<b>0.81</b>	
Naphthalene	0.074	<b>0.057 J</b>	< 0.047 UJ	< 0.047 UJ	ND	<b>0.24</b>	<b>0.19</b>	<b>0.26</b>	<b>0.20</b>	
C5 - C8 Aliphatic Hydrocarbons	--	< 75 U	< 75 U	<b>360</b>	<b>360</b>	<b>100</b>	<b>100</b>	<b>93</b>	<b>93</b>	
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	<b>37</b>	<b>37</b>	<b>54</b>	<b>54</b>	<b>47</b>	<b>47</b>	
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND	
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>74</b>	<b>74</b>	<b>423</b>	<b>400</b>	<b>180</b>	<b>157</b>	<b>166</b>	<b>142</b>	

**Notes**

(1) Adjusted results were calculated by subtracting the upwind ambient air result from the crawlspace or indoor air result. If the reported crawlspace or indoor air result was less than the upwind ambient air concentration or if a certain analyte was not detected in either the crawlspace or indoor air sample and the ambient air result, the net value is shown as ND and summed as zero in the Total Petroleum Hydrocarbon calculation.

(2) Model Toxic Control Act (MTCA) Method B Indoor Air Cleanup Levels (CULs), including the generic Total Petroleum Hydrocarbons CUL.

(3) The concentration for TPH was calculated as the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gas-range VOCs in accordance with Ecology guidance (2022). For soil gas samples and ambient air samples where the aliphatic or aromatic hydrocarbons were not detected, the TPH concentration was summed using one-half the reporting limit for individual compounds. For crawlspace and indoor air samples, if an individual compound was not detected in either the crawlspace or indoor sample and also not detected in the associated ambient sample, the TPH concentration was summed using zero for non-detected individual compounds.

**Bold results indicate analyte was detected.**

**Blue-highlighted values exceed the MTCA Method B Indoor Air Cleanup Levels for Unrestricted Land Use; only ambient air, net crawlspace air, and net indoor air values are screened against the MTCA Method B Indoor Air Cleanup Levels.**

µg/m<sup>3</sup> = micrograms per cubic meter

-- = not applicable

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

Aspect Consulting

1/9/2024

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**Table 8**

Remedial Investigation Report

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**Table 9. January 2023 - Vapor Intrusion Assessment Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Chemical Name	Location/Unit	Ambient		Unit #125					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-230109	AMB-2-230109	CS-125-230109	--	IA-125-1-230109	--	IA-125-2-230109	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.54</b>	<b>0.52</b>	<b>2.1</b>	<b>1.56</b>	<b>0.58</b>	<b>0.04</b>	<b>0.54</b>	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>2.6</b>	<b>2.6</b>	<b>0.64</b>	<b>0.64</b>	<b>0.63</b>	<b>0.63</b>
Total Xylenes	46	<b>1.76</b>	<b>1.64</b>	<b>13.8</b>	<b>12.04</b>	<b>2.81</b>	<b>1.05</b>	<b>2.8</b>	<b>1.04</b>
Naphthalene	0.074	< 0.26 U	< 0.26 U	< 0.26 U	ND	< 0.26 U	ND	< 0.26 U	ND
C5 - C8 Aliphatic Hydrocarbons	--	<b>1200 X</b>	<b>520 X</b>	<b>2300</b>	<b>1100</b>	<b>110</b>	ND	<b>99</b>	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	<b>66</b>	66	<b>27</b>	<b>27</b>	<b>52</b>	<b>52</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>1237 X</b>	<b>557 X</b>	<b>2407</b>	<b>1182</b>	<b>163</b>	<b>29</b>	<b>177</b>	<b>54</b>

Chemical Name	Location/Unit	Ambient		Unit #127					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-230109	AMB-2-230109	CS-127-230109	--	IA-127-1-230109	--	IA-127-2-230109	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.54</b>	<b>0.52</b>	<b>6</b>	<b>5</b>	<b>0.54</b>	ND	<b>0.54</b>	ND
Toluene	2,300	< 19 U	< 19 U	<b>86 E</b>	<b>86 E</b>	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>17</b>	<b>17</b>	<b>0.83</b>	<b>0.83</b>	<b>0.86</b>	<b>0.86</b>
Total Xylenes	46	<b>1.76</b>	<b>1.64</b>	<b>102 E</b>	<b>100 E</b>	<b>2.97</b>	<b>1.21</b>	<b>3.12</b>	<b>1.36</b>
Naphthalene	0.074	< 0.26 U	< 0.26 U	<b>4.4</b>	<b>4.4</b>	< 0.26 U	ND	< 0.26 U	ND
C5 - C8 Aliphatic Hydrocarbons	--	<b>1200 X</b>	<b>520 X</b>	<b>1600</b>	<b>400</b>	<b>100</b>	ND	<b>120</b>	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	<b>84</b>	<b>84</b>	<b>43</b>	<b>43</b>	<b>62</b>	<b>62</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	<b>130</b>	<b>130</b>	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>1237 X</b>	<b>557 X</b>	<b>2029 E</b>	<b>826 E</b>	<b>169</b>	<b>45</b>	<b>209</b>	<b>64</b>

**Table 9. January 2023 - Vapor Intrusion Assessment Results**

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

DRAFT

Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	Location/Unit		Unit #129						
		Ambient		Crawlspace Beneath Bathroom		Living Room		Bathroom		
		Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
		Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
Sample ID	AMB-1-230109	AMB-2-230109	CS-129-230109	--	IA-129-1-230109	--	IA-129-2-230109	--		
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>										
Benzene	0.32	<b>0.54</b>	<b>0.52</b>	<b>0.79</b>	<b>0.25</b>	<b>0.65</b>	<b>0.11</b>	<b>0.68</b>	<b>0.14</b>	
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND	
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>1.1</b>	<b>1.1</b>	<b>0.67</b>	<b>0.67</b>	<b>0.71</b>	<b>0.71</b>	
Total Xylenes	46	<b>1.76</b>	<b>1.64</b>	<b>5.7</b>	<b>3.94</b>	<b>3.16</b>	<b>1.4</b>	<b>3.32</b>	<b>1.56</b>	
Naphthalene	0.074	< 0.26 U	< 0.26 U	<b>0.26</b>	<b>0.26</b>	< 0.26 U	ND	< 0.26 U	ND	
C5 - C8 Aliphatic Hydrocarbons	--	<b>1200 X</b>	<b>520 X</b>	<b>690 X</b>	ND	<b>110</b>	ND	<b>110</b>	ND	
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>49</b>	<b>49</b>	<b>29</b>	<b>29</b>	
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND	
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>1237 X</b>	<b>557 X</b>	<b>732 X</b>	<b>6</b>	<b>186</b>	<b>51</b>	<b>166</b>	<b>31</b>	

Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	Location/Unit		Unit #131						
		Ambient		Crawlspace Beneath Bathroom		Living Room				
		Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Field Duplicate	Indoor Air, Net <sup>(1)</sup>
		Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Field Duplicate	Indoor Air, Net <sup>(1)</sup>
Sample ID	AMB-1-230109	AMB-2-230109	CS-131-230109	--	IA-131-1-230109	--	IA-FD-230109	--		
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>										
Benzene	0.32	<b>0.54</b>	<b>0.52</b>	<b>8</b>	<b>7.46</b>	<b>1.2</b>	<b>0.7</b>	<b>1.2</b>	<b>0.66</b>	
Toluene	2,300	< 19 U	< 19 U	<b>150 E</b>	<b>150 E</b>	< 19 U	ND	< 19 U	ND	
Ethylbenzene	460	< 0.43 U	< 0.43 U	<b>33</b>	<b>33</b>	<b>0.73</b>	<b>0.73</b>	<b>0.77</b>	<b>0.77</b>	
Total Xylenes	46	<b>1.76</b>	<b>1.64</b>	<b>192 E</b>	<b>190 E</b>	<b>3.22</b>	<b>1.46</b>	<b>3.39</b>	<b>1.63</b>	
Naphthalene	0.074	< 0.26 U	< 0.26 U	<b>7.9</b>	<b>7.9</b>	<b>0.33</b>	<b>0.33</b>	<b>0.35</b>	<b>0.35</b>	
C5 - C8 Aliphatic Hydrocarbons	--	<b>1200 X</b>	<b>520 X</b>	<b>2200</b>	<b>1000</b>	<b>130</b>	ND	<b>120</b>	ND	
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	<b>130</b>	<b>130</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>	
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	<b>230</b>	<b>230</b>	< 25 U	ND	< 25 U	ND	
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>1237 X</b>	<b>557 X</b>	<b>2951 E</b>	<b>1748 E</b>	<b>194</b>	<b>40</b>	<b>185</b>	<b>40</b>	

**Notes**

(1) Adjusted results were calculated by subtracting the upwind ambient air result from the crawlspace or indoor air result. If the reported crawlspace or indoor air result was less than the upwind ambient air concentration or if a certain analyte was not detected in either the crawlspace or indoor air sample and the ambient air result, the net value is shown as ND and summed as zero in the Total Petroleum Hydrocarbon calculation.

(2) Model Toxic Control Act (MTCA) Method B Indoor Air Cleanup Levels (CULs), including the generic Total Petroleum Hydrocarbons CUL.

(3) The concentration for TPH was calculated as the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gas-range VOCs in accordance with Ecology guidance (2022). For soil gas samples and ambient air samples where the aliphatic or aromatic hydrocarbons were not detected, the TPH concentration was summed using one-half the reporting limit for individual compounds. For crawlspace and indoor air samples, if an individual compound was not detected in either the crawlspace or indoor sample and also not detected in the associated ambient sample, the TPH concentration was summed using zero for non-detected individual compounds.

**Bold results indicate analyte was detected.**

Blue-highlighted values exceed the MTCA Method B Indoor Air Cleanup Levels for Unrestricted Land Use; only ambient air, net crawlspace air, and net indoor air values are screened against the MTCA Method B Indoor Air Cleanup Levels.

µg/m<sup>3</sup> = micrograms per cubic meter

-- = not applicable

U - Analyte not detected at or above Reporting Limit (RL) shown

X - Chromatographic pattern does not match fuel standard used for quantitation

E - Result exceeded calibration range. Result usable for qualitative analysis of analyte presence, but numeric value should not be included in quantitative analysis.

**Aspect Consulting**

1/9/2024

V:\180357 Aloha Cafe\Deliverables\RI\Public Review Draft\Tables\Tables 7 to 10 - Vapor Intrusion Assessment Results

**Table 9**

Remedial Investigation Report

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**Table 10. February 2023 - Vapor Intrusion Assessment Results**

DRAFT

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Chemical Name	Location/Unit	Ambient		Unit #125					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-230222	AMB-2-230222	CS-125-230222	--	IA-125-1-230222	--	IA-125-2-230222	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.37</b>	<b>0.37</b>	<b>0.56</b>	<b>0.19</b>	<b>0.36</b>	ND	<b>0.36</b>	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43	< 0.43	< 0.43 U	ND	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	< 1.3 U	< 1.3 U	<b>1.93</b>	<b>1.93</b>	< 1.3 U	ND	< 1.3 U	ND
Naphthalene	0.074	< 0.047 UJ	< 0.047 UJ	< 0.047 UJ	ND	<b>0.063 J</b>	<b>0.063 J</b>	<b>0.079 J</b>	<b>0.079 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	<b>120</b>	<b>120</b>	<b>350 X</b>	<b>230 X</b>	< 75 U	ND	<b>80</b>	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>156</b>	<b>156</b>	<b>387 X</b>	<b>232 X</b>	<b>73</b>	<b>0.063 J</b>	<b>116</b>	<b>0.079 J</b>

Chemical Name	Location/Unit	Ambient		Unit #127					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-230222	AMB-2-230222	CS-127-230222	--	IA-127-1-230222	--	IA-127-2-230222	--
	<b>MTCA Method B CUL<sup>(2)</sup> (Unrestricted Use)</b>								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.37</b>	<b>0.37</b>	<b>0.42</b>	<b>0.05</b>	<b>0.33</b>	ND	<b>0.35</b>	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43	< 0.43	< 0.43 U	ND	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	< 1.3 U	< 1.3 U	<b>1.22</b>	<b>1.22</b>	<b>1.13</b>	<b>1.13</b>	< 1.3 U	ND
Naphthalene	0.074	< 0.047 UJ	< 0.047 UJ	< 0.047 UJ	ND	<b>0.12 J</b>	<b>0.12 J</b>	<b>0.079 J</b>	<b>0.079 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	<b>120</b>	<b>120</b>	<b>150 X</b>	<b>30</b>	<b>110</b>	ND	<b>88</b>	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>57</b>	<b>57</b>	<b>33</b>	ND
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>156</b>	<b>156</b>	<b>186 X</b>	<b>31</b>	<b>191</b>	<b>58</b>	<b>144</b>	<b>0.079 J</b>

**Table 10. February 2023 - Vapor Intrusion Assessment Results**

DRAFT

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

Chemical Name	Location/Unit	Ambient		Unit #129					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room		Bathroom	
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-230222	AMB-2-230222	CS-129-230222	--	IA-129-1-230222	--	IA-129-2-230222	--
	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.37</b>	<b>0.37</b>	<b>0.4</b>	<b>0.03</b>	<b>0.34</b>	ND	<b>0.33</b>	ND
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43	< 0.43	< 0.43 U	ND	< 0.43 U	ND	< 0.43 U	ND
Total Xylenes	46	< 1.3 U	< 1.3 U	< 1.3 U	ND	< 1.3 U	ND	< 1.3 U	ND
Naphthalene	0.074	< 0.047 UJ	< 0.047 UJ	< 0.047 UJ	ND	<b>0.15 J</b>	<b>0.15 J</b>	<b>0.068 J</b>	<b>0.068 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	<b>120</b>	<b>120</b>	<b>95</b>	ND	<b>110</b>	ND	< 75 U	ND
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>210</b>	<b>210</b>	<b>68</b>	<b>68</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>156</b>	<b>156</b>	<b>131</b>	<b>0.03</b>	<b>343</b>	<b>210</b>	<b>129</b>	<b>68</b>

Chemical Name	Location/Unit	Ambient		Unit #131					
	Area	Outdoor, Upwind	Outdoor, Crosswind	Crawlspace Beneath Bathroom		Living Room			
	Sample Type	Background, Reported	Background, Reported	Crawlspace, Reported	Crawlspace, Net <sup>(1)</sup>	Indoor Air, Reported	Indoor Air, Net <sup>(1)</sup>	Field Duplicate	Indoor Air, Net <sup>(1)</sup>
	Sample ID	AMB-1-230222	AMB-2-230222	CS-131-230222	--	IA-131-1-230222	--	IA-FD-230222	--
	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)								
<b>Petroleum Hydrocarbon Related Volatile Organic Compounds (µg/m<sup>3</sup>)</b>									
Benzene	0.32	<b>0.37</b>	<b>0.37</b>	<b>0.48</b>	<b>0.11</b>	<b>1.1</b>	<b>0.73</b>	<b>1.1</b>	<b>0.73</b>
Toluene	2,300	< 19 U	< 19 U	< 19 U	ND	< 19 U	ND	< 19 U	ND
Ethylbenzene	460	< 0.43	< 0.43	< 0.43 U	ND	<b>0.57</b>	<b>0.57</b>	<b>0.59</b>	<b>0.59</b>
Total Xylenes	46	< 1.3 U	< 1.3 U	<b>2.05</b>	<b>2.1</b>	<b>2.4</b>	<b>2.4</b>	<b>2.6</b>	<b>2.6</b>
Naphthalene	0.074	< 0.047 UJ	< 0.047 UJ	< 0.047 UJ	ND	<b>0.33</b>	<b>0.33</b>	<b>0.33</b>	<b>0.33</b>
C5 - C8 Aliphatic Hydrocarbons	--	<b>120</b>	<b>120</b>	<b>100</b>	ND	<b>160 X</b>	<b>40 X</b>	<b>150 X</b>	<b>30 X</b>
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	<b>46</b>	<b>46</b>	<b>41</b>	<b>41</b>
C9 - C10 Aromatic Hydrocarbons	--	< 25 U	< 25 U	< 25 U	ND	< 25 U	ND	< 25 U	ND
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>156</b>	<b>156</b>	<b>137</b>	<b>2.2</b>	<b>232 X</b>	<b>90 X</b>	<b>218 X</b>	<b>75 X</b>

**Table 10. February 2023 - Vapor Intrusion Assessment Results**

DRAFT

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

	Sample Type	Active Ventilation
	Sample ID	VS-EFF-230222
Chemical Name	MTCA Method B CUL <sup>(2)</sup> (Unrestricted Use)	
Benzene	0.32	<b>0.35</b>
Toluene	2,300	< 19 U
Ethylbenzene	460	< 0.43 U
Total Xylenes	46	<b>1.10</b>
Naphthalene	0.074	<b>0.1 J</b>
C5 - C8 Aliphatic Hydrocarbons	--	<b>82</b>
C9 - C12 Aliphatic Hydrocarbons	--	< 25 U
C9 - C10 Aromatic Hydrocarbons	--	< 25 U
Total Petroleum Hydrocarbons <sup>(3)</sup>	46	<b>118</b>

**Notes**

(1) Adjusted results were calculated by subtracting the upwind ambient air result from the crawlspace or indoor air result. If the reported crawlspace or indoor air result was less than the upwind ambient air concentration or if a certain analyte was not detected in either the crawlspace or indoor air sample and the ambient air result, the net value is shown as ND and summed as zero in the Total Petroleum Hydrocarbon calculation.

(2) Model Toxic Control Act (MTCA) Method B Indoor Air Cleanup Levels (CULs), including the generic Total Petroleum Hydrocarbons CUL.

(3) The concentration for TPH was calculated as the sum of aliphatic hydrocarbons, aromatic hydrocarbons, and gas-range VOCs in accordance with Ecology guidance (2022). For soil gas samples and ambient air samples where the aliphatic or aromatic hydrocarbons were not detected, the TPH concentration was summed using one-half the reporting limit for individual compounds. For crawlspace and indoor air samples, if an individual compound was not detected in either the crawlspace or indoor sample and also not detected in the associated ambient sample, the TPH concentration was summed using zero for non-detected individual compounds.

**Blue results indicate analyte was detected.**

Blue-highlighted values exceed the MTCA Method B Indoor Air Cleanup Levels for Unrestricted Land Use; only ambient air, net crawlspace air, and net indoor air values are screened against the MTCA Method B Indoor Air Cleanup Levels.

µg/m<sup>3</sup> = micrograms per cubic meter

-- = not applicable

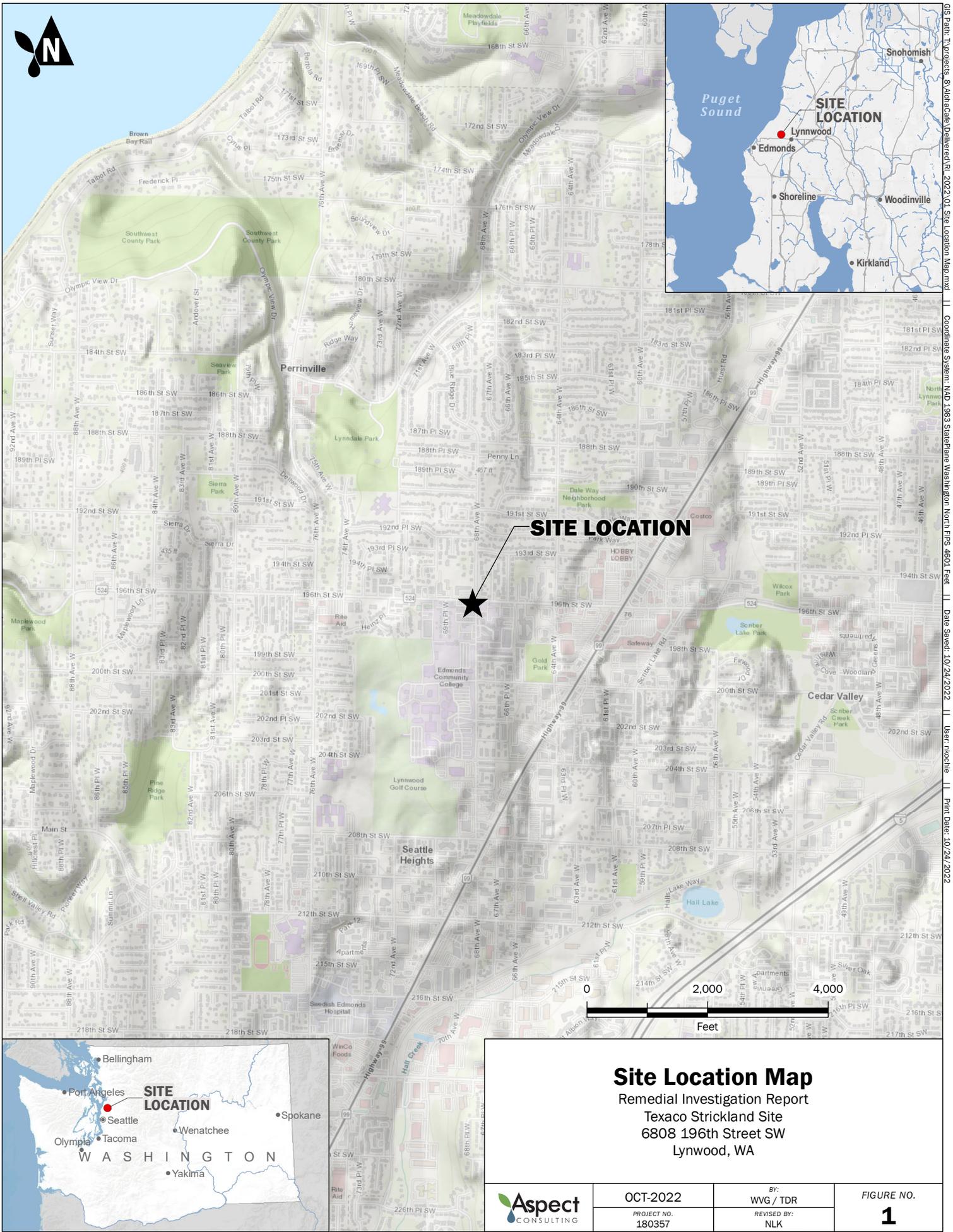
U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate

X - Chromatographic pattern does not match fuel standard used for quantitation

# FIGURES



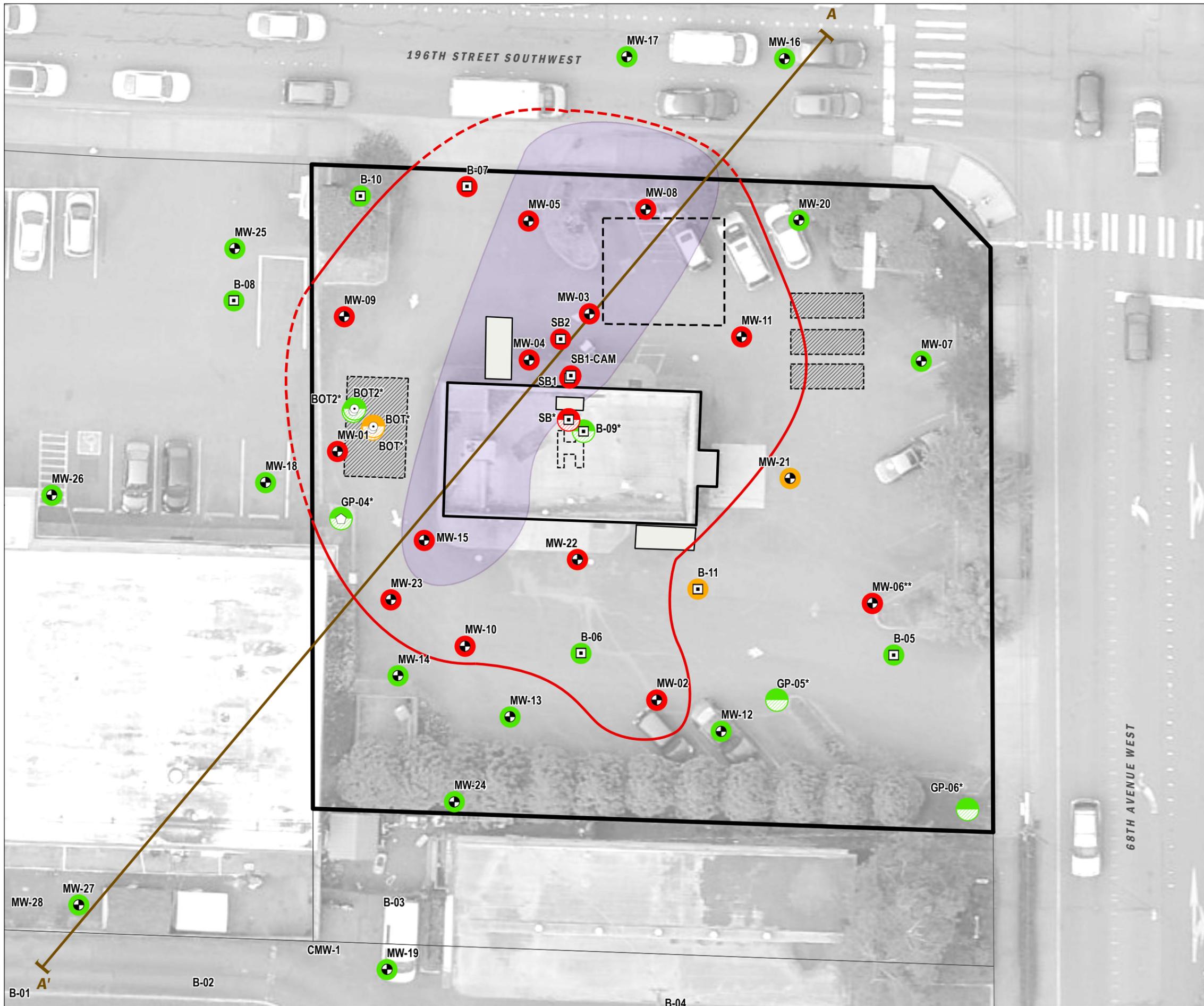
**Site Location Map**  
 Remedial Investigation Report  
 Texaco Strickland Site  
 6808 196th Street SW  
 Lynwood, WA

	OCT-2022	BY: WVG / TDR	FIGURE NO. <b>1</b>
	PROJECT NO. 180357	REVISED BY: NLK	

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 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

GIS Path: I:\Projects - 8\Almanac\Deliverables\2022\04\_Site Location Map.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 10/24/2022 | User: mrochle | Print Date: 10/24/2022





- One or more analytes detected at concentrations greater than the MTCA Method A cleanup levels in soil.
- One or more analytes detected at concentrations less than the MTCA Method A cleanup levels in soil.
- Analytes not detected.

- \* Shallow Soil Sample Result (less than 5 feet below ground surface)
- Soil Probe
- Soil Boring
- Monitoring Well
- Soil Sample

Extents of Soil Exceeding Cleanup Levels  
Dashed where inferred

LNAPL Plume

Cross Section

Building

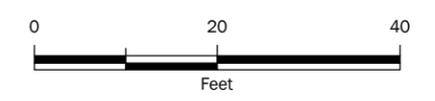
Subject Property

Former UST (Removed)

Existing UST (Closed-In-Place or Abandoned)

Former Pump Island

Snohomish County Tax Parcel



Notes: - LNAPL = Light Non-Aqueous Phase Liquid

\*\* The soil sample collected at MW-6 in 2007 contained an exceedance of benzene at 20 feet bgs. The soil sample collected from B-05 in 2010 did not contain detectable concentrations of benzene and has established soil confirmation.

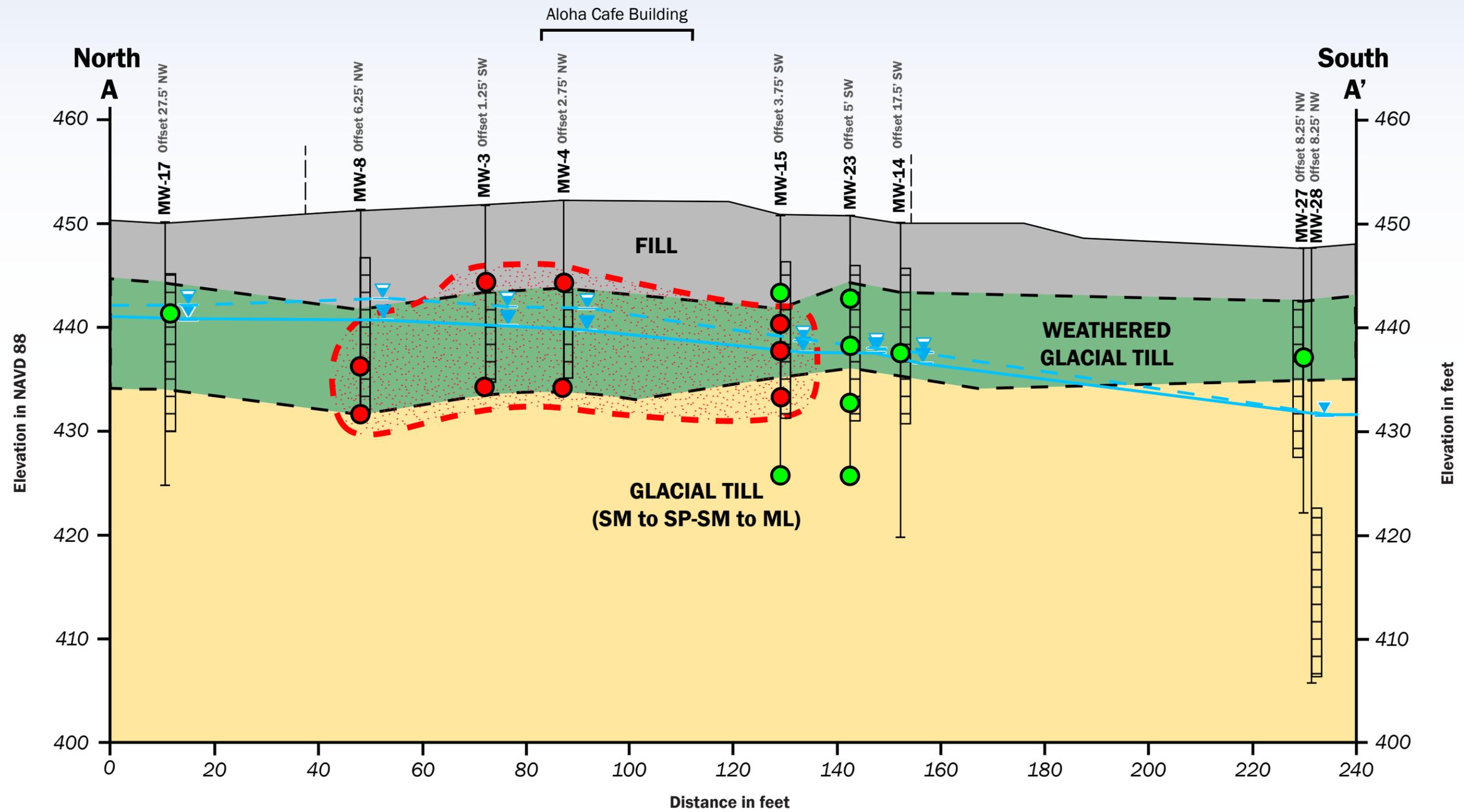
### Soil Analytical Results

Remedial Investigation Report  
Texaco Strickland Site  
6808 196th Street SW  
Lynwood, WA



OCT-2022	BY: WVG / TDR
PROJECT NO. 180357	REVISED BY: AJY / WEG / NLK

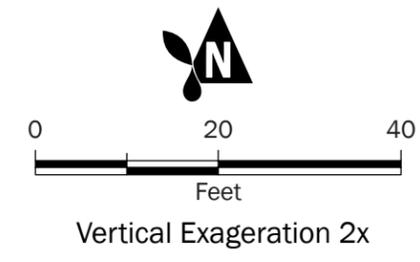
FIGURE NO. **3**



- One or more analytes detected at concentrations greater than the MTCA Method A cleanup levels in soil
- Analytes not detected
- Approximate Extents of Gasoline Range Total Petroleum Hydrocarbon Contaminated Soil

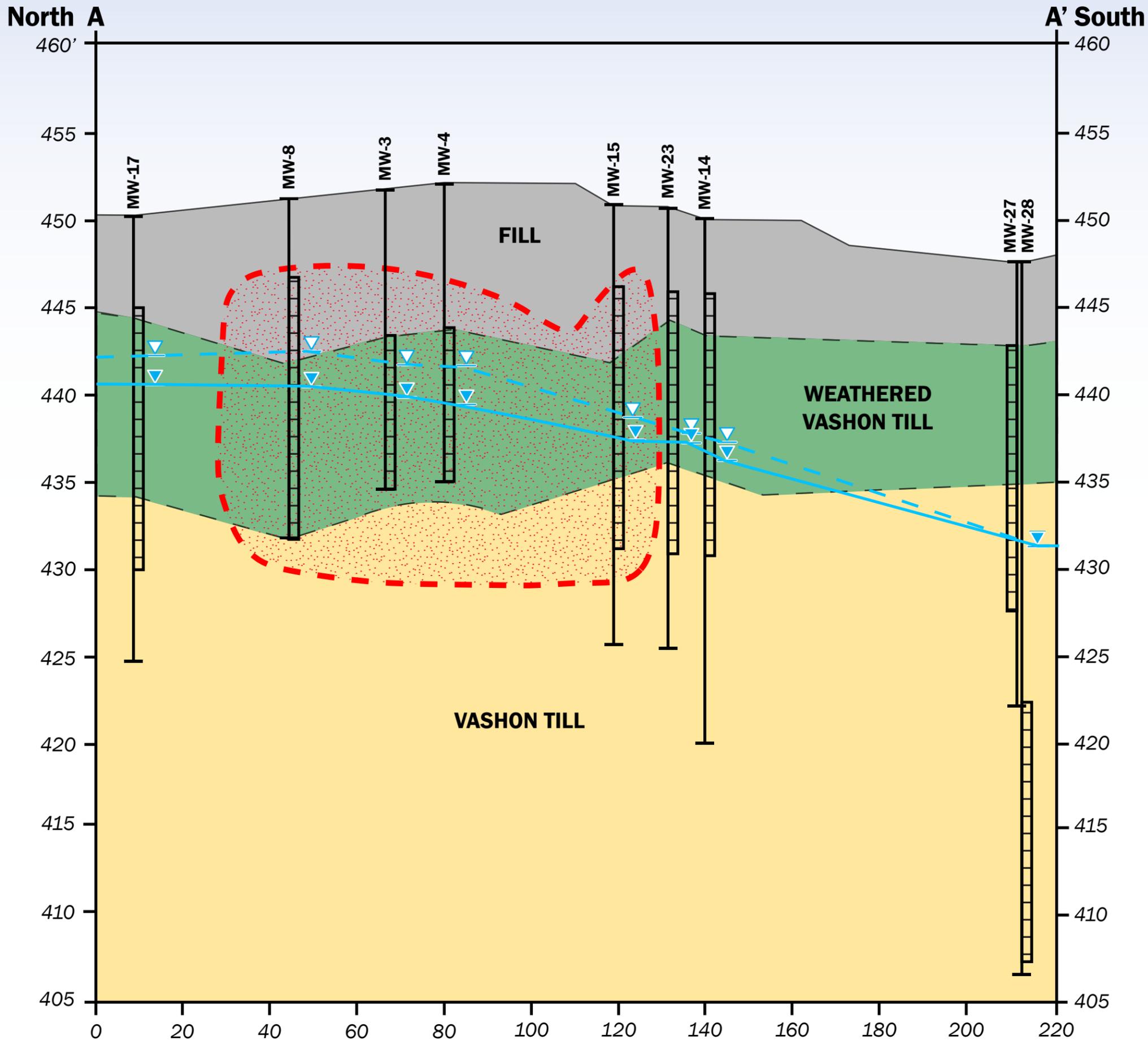
- Inferred Geologic Contact
- Highest observed groundwater elevation
- Lowest observed groundwater elevation
- Fill
- Weathered Glacial Till
- Glacial Till (SM to SP-SM to ML)

- ← MW-16 Monitoring Well Identification
- ← Monitoring Well
- ← Seasonal High Water Level
- ← Screened Interval
- ← Seasonal Low Water Level



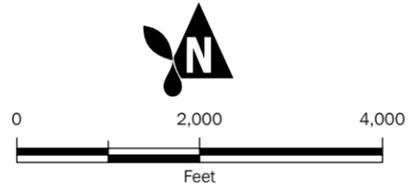
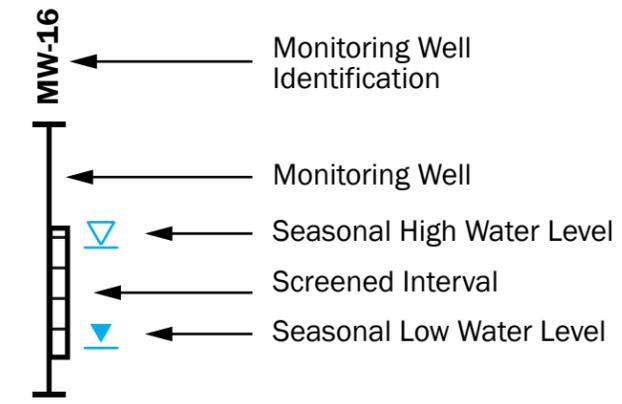
**Cross Section A-A'**  
 Remedial Investigation Report  
 Texaco Strickland Site  
 6808 196th Street SW  
 Lynnwood, Washington

	OCT-2022	BY: DWU / RAC	FIGURE NO. <b>4</b>
	PROJECT NO. 180357	REV BY: NLK	



### Legend

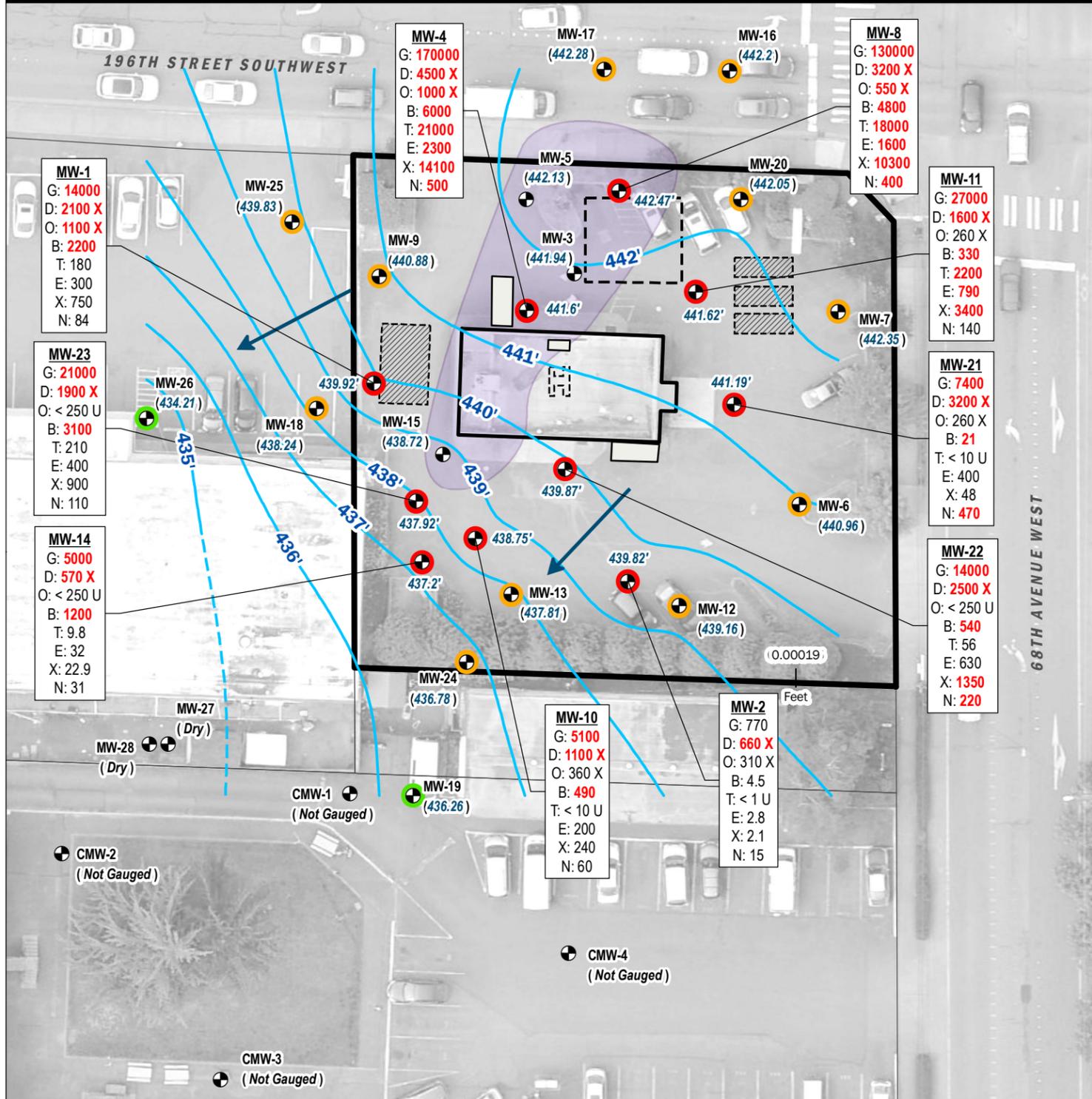
- Fill
- Weathered Vashon Till
- Vashon Till
- Estimated Geologic Contact
- Seasonal High Water Level
- Seasonal Low Water Level
- Approximate Extents of Gasoline Range Total Petroleum Hydrocarbon Contaminated Soil



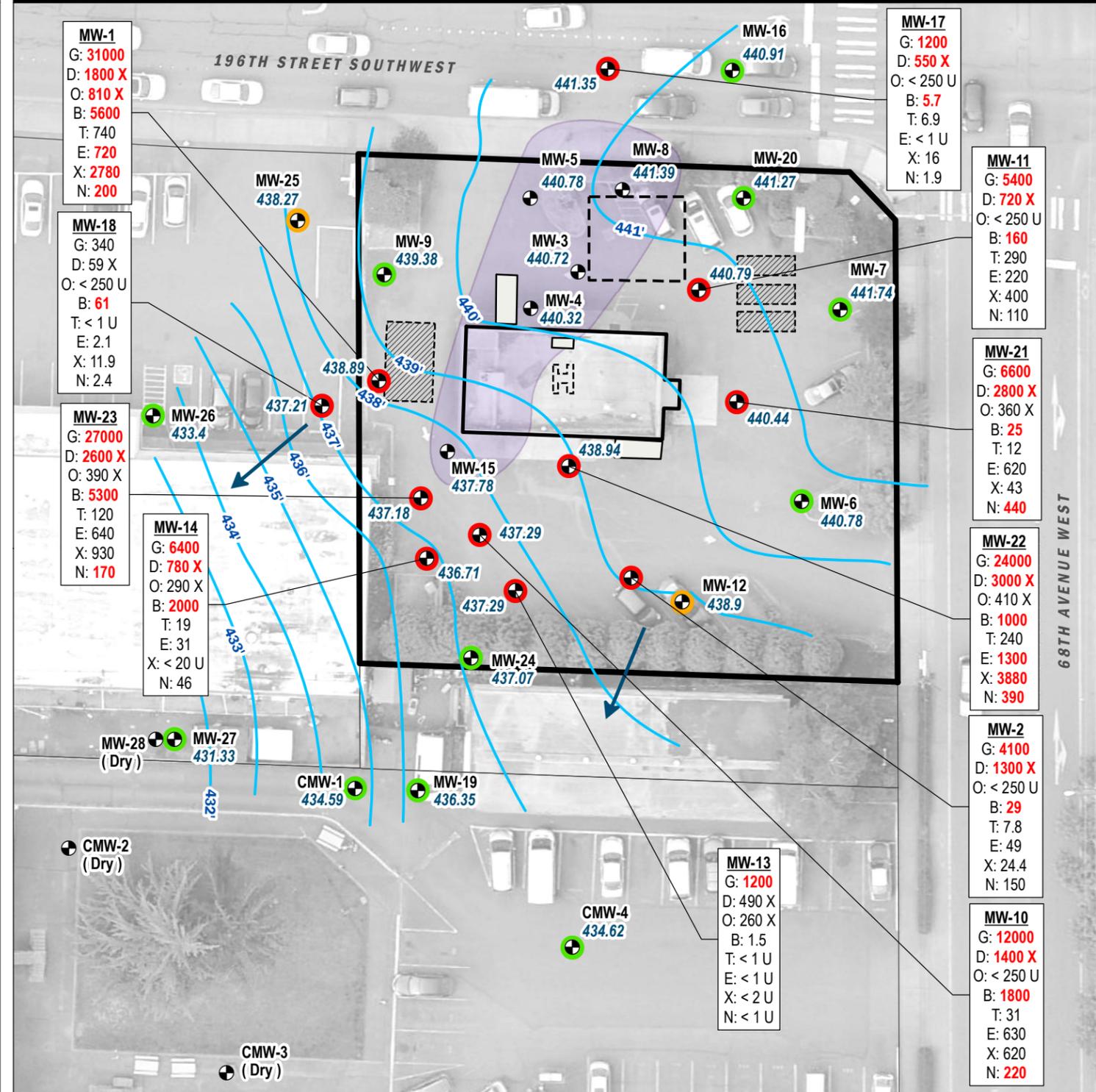
### Cross Section A-A'

RWIP Addendum  
 Texaco Strickland Site  
 Lynnwood, Washington

# August 2020



# November 2020



<ul style="list-style-type: none"> <li>● One or more analytes detected at concentrations greater than the MTCA Method A cleanup levels in groundwater.</li> <li>● One or more analytes detected at concentrations less than the MTCA Method A cleanup levels in groundwater.</li> <li>● Analytes not detected.</li> </ul>	<ul style="list-style-type: none"> <li>⊕ Monitoring Well</li> <li>⊖ LNAPL Plume</li> <li>~ Groundwater Contour</li> <li>➔ Approximate Groundwater Flow Direction</li> <li>▭ Building</li> </ul>	<ul style="list-style-type: none"> <li>▭ Subject Property</li> <li>▨ Former UST (Removed)</li> <li>▭ Existing UST (Closed-In-Place or Abandoned)</li> <li>▭ Former Pump Island</li> <li>⊕ Snohomish County Tax Parcel</li> </ul>
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Groundwater elevation in feet

Exploration Name

Analyte and its concentration in micrograms per liter

Notes:

- LNAPL = Light Non-aqueous Phase Liquid
- X = Total Xylenes
- E = Ethylbenzene
- GRO = Gasoline Range Organics
- DRO = Diesel Range Organics
- B = Benzene
- Only locations that exceed the MTCA Method A Cleanup Levels are shown

Scale: 0 to 35 Feet

## Groundwater Analytical Results - 2020

Remedial Investigation Report  
 Texaco Strickland Site  
 6808 196th Street SW  
 Lynnwood, WA

PROJECT NO. 180357	BY: WVG / TDR REVISED BY: AJY / WEG / NLK	FIGURE NO. <b>5</b>
-----------------------	--	------------------------

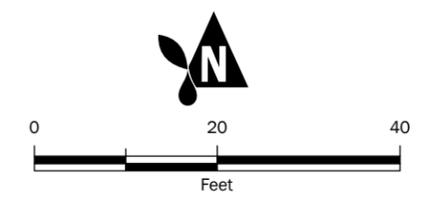
GIS Path: \\snp\projects\_8\Avalanche\Deliverables\2022\GIS\Groundwater Analytical Results.mxd | Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet | Date Saved: 10/24/2022 | User: mcohen | Print Date: 10/24/2022



- Crawlspace Air Sampling Location
- Indoor Air Sampling Location
- Ambient Air Sampling Location
- Soil Gas Probe
- Soil Vapor Sample (Not Sampled During This Event)
- Aloha Cafe Building
- Chri-Mar Apartment Building
- Property Boundary
- Former UST (Removed)
- Existing UST (Closed-In-Place or Abandoned)
- Tax Parcel

**Note:**

\* GP-5 was not sampled during the December 2021 sampling event. The screen of the gas probe was submerged due to seasonally high groundwater elevations.



## Vapor Intrusion Assessment Sampling Locations

Remedial Investigation Report  
Texaco Strickland Site  
6808 196th Street SW  
Lynwood, WA

	OCT-2022	BY: WVG / TDR	FIGURE NO.
	PROJECT NO. 180357	REVISED BY: WEG/SBM/NLK	<b>6</b>

GIS Path: T:\projects\_8\AlohaCafe\Deliverables\2022\06\_Vapor Intrusion Assessment\_Sampling Locations.mxd | Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet | Date Saved: 10/27/2022 | User: mchelle | Print Date: 10/27/2022

# **APPENDIX A**

## **Boring Logs**

Coarse-Grained Soils - More than 50% <sup>1</sup> Retained on No. 200 Sieve	Gravels - More than 50% <sup>1</sup> of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines	<b>GW</b>	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
		≥15% Fines	<b>GP</b>	Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
	Sands - 50% <sup>1</sup> or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines	<b>GM</b>	SILTY GRAVEL SILTY GRAVEL WITH SAND
		≥15% Fines	<b>GC</b>	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
Fine-Grained Soils - 50% <sup>1</sup> or More Passes No. 200 Sieve	Sands - 50% <sup>1</sup> or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines	<b>SW</b>	Well-graded SAND Well-graded SAND WITH GRAVEL
		≥15% Fines	<b>SP</b>	Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
	Silt and Clays Liquid Limit Less than 50%	≤5% Fines	<b>SM</b>	SILTY SAND SILTY SAND WITH GRAVEL
		≥15% Fines	<b>SC</b>	CLAYEY SAND CLAYEY SAND WITH GRAVEL
Highly Organic Soils	Silt and Clays Liquid Limit 50% or More		<b>ML</b>	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
			<b>CL</b>	LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
	Silt and Clays Liquid Limit 50% or More		<b>OL</b>	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
			<b>MH</b>	ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
Highly Organic Soils	Silt and Clays Liquid Limit 50% or More		<b>CH</b>	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
			<b>OH</b>	ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
			<b>PT</b>	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

MC = Natural Moisture Content	<b>GEOTECHNICAL LAB TESTS</b>	
PS = Particle Size Distribution		
FC = Fines Content (% < 0.075 mm)		
GH = Hydrometer Test		
AL = Atterberg Limits		
C = Consolidation Test		
Str = Strength Test		
OC = Organic Content (% Loss by Ignition)		
Comp = Proctor Test		
K = Hydraulic Conductivity Test		
SG = Specific Gravity Test		
<b>Organic Chemicals</b>		
<b>CHEMICAL LAB TESTS</b>		
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes		
TPH-Dx = Diesel and Oil-Range Petroleum Hydrocarbons		
TPH-G = Gasoline-Range Petroleum Hydrocarbons		
VOCs = Volatile Organic Compounds		
SVOCs = Semi-Volatile Organic Compounds		
PAHs = Polycyclic Aromatic Hydrocarbon Compounds		
PCBs = Polychlorinated Biphenyls		
<b>Metals</b>		
RCRA8 = As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)		
MTCA5 = As, Cd, Cr, Hg, Pb (d = dissolved, t = total)		
PP-13 = Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)		
<b>FIELD TESTS</b>		
PID = Photoionization Detector		
Sheen = Oil Sheen Test		
SPT <sup>2</sup> = Standard Penetration Test		
NSPT = Non-Standard Penetration Test		
DCPT = Dynamic Cone Penetration Test		
<b>COMPONENT DEFINITIONS</b>		
<b>Descriptive Term</b>	<b>Size Range and Sieve Number</b>	
Boulders =	Larger than 12 inches	
Cobbles =	3 inches to 12 inches	
Coarse Gravel =	3 inches to 3/4 inches	
Fine Gravel =	3/4 inches to No. 4 (4.75 mm)	
Coarse Sand =	No. 4 (4.75 mm) to No. 10 (2.00 mm)	
Medium Sand =	No. 10 (2.00 mm) to No. 40 (0.425 mm)	
Fine Sand =	No. 40 (0.425 mm) to No. 200 (0.075 mm)	
Silt and Clay =	Smaller than No. 200 (0.075 mm)	
<b>% by Weight</b>	<b>Modifier</b>	<b>ESTIMATED<sup>1</sup> PERCENTAGE</b>
<1 =	Subtrace	15 to 25 = Little
1 to <5 =	Trace	30 to 45 = Some
5 to 10 =	Few	>50 = Mostly
<b>MOISTURE CONTENT</b>		
Dry =	Absence of moisture, dusty, dry to the touch	
Slightly Moist =	Perceptible moisture	
Moist =	Damp but no visible water	
Very Moist =	Water visible but not free draining	
Wet =	Visible free water, usually from below water table	
<b>RELATIVE DENSITY</b>		
<b>Non-Cohesive or Coarse-Grained Soils</b>		
<b>Density<sup>3</sup></b>	<b>SPT<sup>2</sup> Blows/Foot</b>	<b>Penetration with 1/2" Diameter Rod</b>
Very Loose =	0 to 4	≥ 2'
Loose =	5 to 10	1' to 2'
Medium Dense =	11 to 30	3" to 1'
Dense =	31 to 50	1" to 3"
Very Dense =	> 50	< 1"
<b>CONSISTENCY</b>		
<b>Cohesive or Fine-Grained Soils</b>		
<b>Consistency<sup>3</sup></b>	<b>SPT<sup>2</sup> Blows/Foot</b>	<b>Manual Test</b>
Very Soft =	0 to 1	Penetrated >1" easily by thumb. Extrudes between thumb & fingers.
Soft =	2 to 4	Penetrated 1/4" to 1" easily by thumb. Easily molded.
Medium Stiff =	5 to 8	Penetrated >1/4" with effort by thumb. Molded with strong pressure.
Stiff =	9 to 15	Indented ~1/4" with effort by thumb.
Very Stiff =	16 to 30	Indented easily by thumbnail.
Hard =	> 30	Indented with difficulty by thumbnail.
<b>GEOLOGIC CONTACTS</b>		
Observed and Distinct	Observed and Gradual	Inferred
		<b>Exploration Log Key</b>



### Aloha Cafe - 180357

### Environmental Exploration Log

*Project Address & Site Specific Location*  
6808 196th Street Southwest, Lynwood, Washington, 98036, E of former building

*Coordinates*

*Exploration Number*

NA

**B-04**

*Contractor*

*Equipment*

*Sampling Method*

*Ground Surface Elev. (NAVD88)*

Holocene

Direct push rig

Percussion hammer

440' (est)

*Operator*

*Exploration Method(s)*

*Work Start/Completion Dates*

*Top of Casing Elev. (NAVD88)*

*Depth to Water (Below GS)*

Matt

Direct push

8/5/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	439						SAND WITH SILT (SW-SM); dry, light grey; fines low plasticity, sand fine to coarse, subangular; appears to be CDF	1
2	438						SAND WITH SILT (SW-SM); dry, light grey; fines low plasticity, sand fine to coarse, subangular	2
3	437							3
4	436							4
5	435							5
6	434							6
7	433						concrete	7
8	432						Bottom of exploration at 7.5 ft. bgs.	8
9	431							9
10	430							10
11	429							11
12	428							12
13	427							13
14	426							14
15	425							15
16	424							16
17	423							17
18	422							18
19	421							19
20	420							20
21	419							21
22	418							22
23	417							23
24	416							24

**Legend**

Sample Type

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DRB  
Approved by: AY

**Exploration Log B-04**

Sheet 1 of 1





### Aloha Cafe - 180357

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 35 ft S of center of building

### Environmental Exploration Log

Coordinates (Lat, Lon WGS84)

47.8210, -122.3255 (est)

Exploration Number

**B-06**

Contractor

Holt Services

Equipment

Mobile Drilling B-59

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

John

Exploration Method(s)

8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

6/11/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							ASPHALT; road surface	
							<b>FILL</b> SAND WITH SILT (SW-SM); medium dense, slightly moist, medium grey; low plasticity fines, fine to coarse, subangular sand; trace fine, subrounded gravel	
5	435	Boring backfilled with 3/8" hydrated bentonite chips		B-06-6	SPT=11, 11, 9 PID=0.4 Sheen=No sheen			5
					SPT=2, 1, 2 PID=1.1 Sheen=No sheen		SANDY SILT (ML); soft, moist, dark brown; low plasticity fines; fine, subangular sand; some charcoal and wood debris	
				B-06-8.5	SPT=13, 28, 32 PID=1.4 Sheen=Slight		SAND WITH SILT AND GRAVEL (SW-SM); very dense, slightly moist, dark grey; low plasticity fines; fine to coarse, subangular sand; fine to coarse, subrounded to subangular gravel	
10	430			B-06-10	SPT=16, 14, 17 PID=1.2 Sheen=No sheen			10
		▽ 6/11/2019					<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); very dense, wet, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subangular to subrounded gravel	
15	425			B-06-13	SPT=7, 20, 50/5 PID=2.5 Sheen=Slight			15
					SPT=24, 50-/5 PID=4.9 Sheen=Slight		SAND WITH SILT AND GRAVEL (SP-SM); very dense, wet, dark grey; low plasticity fines; fine to medium, subangular sand; fine to medium, subrounded to subangular gravel	
					SPT=20, 39, 50/5 PID=1.1 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, dark grey; medium plasticity fines; fine to coarse, subangular sand; fine to coarse, subangular to subrounded gravel	
20	420				SPT=50/5 PID=0.6 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SW-SM); very dense, moist, dark grey; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded to subangular gravel	20
					SPT=50/4 PID=0.7 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel	
25	415			B-06-25	SPT=50/3 PID=0.7 Sheen=No sheen			25
							Bottom of exploration at 25.5 ft. bgs.	
30	410							30

**Legend**

☐ No Soil Sample Recovery

▣ Split Barrel 2" X 1.375" (SPT)

▤ Grab sample

Water Level

▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU

Approved by: AY

**Exploration Log B-06**

Sheet 1 of 1



### Aloha Cafe - 180357

### Environmental Exploration Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, NW  
driveway, 15 ft S of 196th St SW

Coordinates (Lat, Lon WGS84)

Exploration Number

47.8212, -122.3256 (est)

**B-07**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holt Services

Mobile Drilling B-59

Autohammer; 140 lb hammer; 30" drop

440' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

John

6/12/2019

NA

12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							ASPHALT; road surface	
							<b>FILL</b> SAND WITH SILT AND GRAVEL (SW-SM); loose, slightly moist, dark brown; low plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	
5	435			B-07-6	SPT=4, 5, 3 PID=31.4 Sheen=Slight			5
							SANDY SILT (ML); medium stiff, slightly moist, dark brown; low plasticity fines; fine, subangular sand; some charcoal and wood debris; very slight petroleum-like odor	
				B-07-8	SPT=10, 35, 45 PID=25.9 Sheen=Slight			
							SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, medium grey; low to medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; moderate petroleum-like odor	
10	430			B-07-12.5	SPT=6, 12, 12 PID=52.14 Sheen=Slight			10
							<b>VAHSON TILL</b> SILTY SAND WITH GRAVEL (SM); very dense, wet, dark grey; medium plasticity fines; fine to medium, subangular sand; fine, subrounded gravel; moderate petroleum-like odor	
15	425				SPT=8, 14, 20 PID=41.6 Sheen=Slight			15
							becomes moist, no odor	
					SPT=12, 30, 30 PID=46.8 Sheen=Slight			
					SPT=30, 50/4 PID=30.3 Sheen=No sheen			
					SPT=50/4 PID=28.6 Sheen=No sheen			
20	420			B-07-22.5	SPT=50/1			20
					SPT=50/4 PID=31.6 Sheen=No sheen			
25	415			B-07-25	SPT=50/3 PID=36.1 Sheen=No sheen			25
					SPT=50/4 PID=23.4 Sheen=No sheen			
					SPT=50/5 PID=14.2 Sheen=No sheen			
30	410						Bottom of exploration at 30.5 ft. bgs.	30

**Legend**

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)
- Grab sample

Water Level

Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log B-07**

Sheet 1 of 1



### Aloha Cafe - 180357

### Environmental Exploration Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynnwood, Washington, 98036, 50 ft N of NE corner of China Cafe Restaurant

Coordinates (Lat, Lon WGS84)

Exploration Number

47.8211, -122.3258 (est)

**B-08**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holt Services

Mobile Drilling B-59

Autohammer; 140 lb hammer; 30" drop

440' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Mitch

7/16/2019

NA

8.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							ASPHALT; road surface	
							<b>FILL</b> SAND WITH GRAVEL (SP); very dense, slightly moist, grey brown; fine to medium, subangular sand; fine, subrounded gravel; no odor	
5	435	Boring backfilled with 3/8" hydrated bentonite chips		B-08-6.0	SPT=22, 50/5 PID=0.0 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); dense, slightly moist, grey brown; fine to medium, subangular sand; fine to coarse, subrounded gravel; no odor	5
		▽ 7/16/2019					SILTY GRAVEL WITH SAND (GM); dense, slightly moist, grey brown; fine to medium, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
				B-08-8.5	SPT=20, 50/5 PID=0.0 Sheen=No sheen		<b>VASHON TILL</b> SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, light grey to grey brown; fine to medium, subangular sand; fine to coarse, subrounded gravel	
10	430				SPT=18, 32, 50/5 PID=0.0 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, grey brown; fine to medium, subangular sand; fine to coarse, subrounded gravel; no odor	10
				B-08-13.5	SPT=28, 50/5 PID=0.0 Sheen=No sheen		SANDY SILT WITH GRAVEL (ML); very dense, moist, grey; fine, subangular sand; fine, subrounded gravel; no odor	
15	425						SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey brown; fine to medium, subangular sand; fine, subrounded gravel; no odor	15
				B-08-18.5	SPT=50/5 PID=0.0 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); very dense, very moist, grey brown; fine to medium, subangular sand; fine, subrounded gravel; no odor	
20	420							20
				B-08-23.5	SPT=50/6 PID=0.0 Sheen=No sheen			
25	415						Bottom of exploration at 25.5 ft. bgs.	25
30	410							30

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE\1.GPJ January 28, 2021

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▤ Grab sample

Water Level

▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log B-08**



### Aloha Cafe - 180357

### Environmental Exploration Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, E of former hoist inside Aloha Cafe building

Coordinates

Exploration Number

NA

**B-09**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Standard Drilling

Geprobe 5412

Percussion hammer

440' (est)

Operator

Exploration Method(s)

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Direct push

8/5/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)	
1	439	Boring backfilled with 3/8" hydrated bentonite chips	S1	B-09-2.5	PID=0.2 Sheen=No sheen	CONCRETE; building slab	FILL SAND WITH SILT (SW-SM); dry, light gray; fine to coarse, subangular sand; well consolidated; slow drilling; appears to be controlled density fill	1	
2	438		S2					2	
3	437		S3	B-09-6	PID=2.0 Sheen=No sheen	CONCRETE; dry, light gray; refusal on concrete	Bottom of exploration at 7.5 ft. bgs.	3	
4	436		S4					4	
5	435		S5					5	
6	434								6
7	433								7
8	432							8	
9	431							9	
10	430							10	
11	429							11	
12	428							12	
13	427							13	
14	426							14	
15	425							15	
16	424							16	
17	423							17	
18	422							18	
19	421							19	
20	420							20	
21	419							21	
22	418							22	
23	417							23	
24	416							24	

**Legend**

- Continuous core 1.85" ID
- Grab sample

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log B-09**



### Aloha Cafe - 180357

### Environmental Exploration Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, NW corner of 6808 parking lot on planter

Coordinates (Lat, Lon WGS84)

Exploration Number

47.8212, -122.3257 (est)

**B-10**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holocene

HSA Foremost B-58

Autohammer; 140 lb hammer; 30" drop

440' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Matt

7/30/2020

NA

9.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Boring backfilled with 3/8" hydrated bentonite chips	S1		SPT=2, 2, 1 PID=2.5 Sheen=No sheen		<b>FILL</b> SILTY SAND (SM); very loose, slightly moist, red-brown; low plasticity fines; fine to medium, subangular sand; subtrace fine, subrounded gravel; some grey to dark brown mottling; subtrace charred wood fragments; no odor	
5	435		S2		SPT=7, 38, 50/6 PID=3.1 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND (SM); very dense, slightly moist, light gray; low plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; some coarse, subangular sand; no odor	5
			S3		SPT=26, 38, 38 PID=2.5 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, very moist, light gray; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	
10	430	▽ 7/30/2020	S4		SPT=30, 39, 50/5			10
			S5	B-10-12.5 NWTPH-Dx, GX, BTEX, Napthalene	SPT=16, 22, 28 PID=5.6 Sheen=No sheen		SILTY SAND (SM); very dense, wet, light gray; low to medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor	
15	425		S6		SPT=16, 24, 50/4 PID=2.1 Sheen=No sheen			15
			S7		SPT=50/5 PID=4.1 Sheen=No sheen		sampler stuck on 4 in cobble	
20	420		S8		SPT=50/5 PID=3.1 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, very wet, gray; low to medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	20
			S9		SPT=39, 50/5 PID=4.1 Sheen=No sheen		SANDY SILT (ML); hard, very moist, gray; medium plasticity; fine to medium, subangular sand; trace fine to coarse, subrounded gravel; no odor	
25	415		S10		SPT=50/6 PID=3.6 Sheen=No sheen		Bottom of exploration at 25 ft. bgs.	25

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log B-10**

Sheet 1 of 1



### Aloha Cafe - 180357

### Environmental Exploration Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, SE of SE corner of Aloha Cafe

Coordinates (Lat, Lon WGS84)

Exploration Number

47.8210, -122.3254 (est)

**B-11**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holocene

HSA Foremost B-58

Autohammer; 140 lb hammer; 30" drop

440' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Matt

7/28/2020

NA

10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							ASPHALT; road surface	
							<b>FILL</b> SANDY SILT (ML); hard, moist, dark brown; medium plasticity fines; fine to coarse, subangular sand; trace fine, subrounded gravel; no odor; poor recovery due to cobble stuck in sampler	
5	435	Boring backfilled with 3/8" hydrated bentonite chips	S1	B-11-5.5 NWTPH-Dx, GX, BTEX, Napthalene	SPT=17, 21, 10 PID=7.4 Sheen=No sheen			5
			S2		SPT=1, 1, 2 PID=7.7 Sheen=Slight		SILTY SAND (SM); very loose, moist, dark brown; medium plasticity fines; fine to coarse, subangular sand; trace fine to medium, subrounded gravel; some charcoal fragments; slight asphalt-like odor	
			S3		SPT=28, 37, 50/5 PID=11.5 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND (SM); very dense, moist, gray; low plasticity fines; fine to medium, subangular sand; trace fine to medium, subrounded gravel; no odor	
10	430	7/28/2020	S4	B-11-10.5 NWTPH-Dx, GX, BTEX, Napthalene	SPT=6, 14, 7 PID=31.8 Sheen=No sheen		some 2 in layers of sand with silt; becomes wet	10
			S5		SPT=25, 32, 50/5 PID=6.6 Sheen=No sheen			
15	425		S6	B-11-15 NWTPH-Dx, GX, BTEX, Napthalene	SPT=16, 27, 40 PID=18.6 Sheen=No sheen		trace fine to coarse, subrounded gravel	15
			S7		SPT=32, 38, 50/4 PID=5.8 Sheen=No sheen			
20	420		S8		SPT=50/6 PID=6.8 Sheen=No sheen			20
			S9		SPT=50/2 PID=5.6 Sheen=No sheen		becomes moist	
25	415		S10		SPT=50/5 PID=4.9 Sheen=No sheen			25
							Bottom of exploration at 25.5 ft. bgs.	

**Legend**

☐ No Soil Sample Recovery

▣ Split Barrel 2" X 1.375" (SPT)

Water Level

▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log B-11**

Sheet 1 of 1



### Aloha Cafe - 180357

### Environmental Exploration Log

Project Address & Site Specific Location  
 6808 196th Street Southwest, Lynwood, Washington, 98036, 10' S of N wall, ~ 20' E of W wall

Coordinates

Exploration Number

NA

**B-12**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Standard Drilling

Geoprobe 5412

Percussion hammer

440' (est)

Operator

Exploration Method(s)

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Direct push

8/5/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							CONCRETE; floor of building	
1	439							1
2	438						<b>FILL</b> SAND WITH SILT (SW-SM); dry, light grey; fines low plasticity, sand fine to coarse, subangular; appears to be CDF; no odor; slow drilling	2
3	437	Boring backfilled with 3/8" hydrated bentonite chips						3
4	436						slow drilling	4
5	435						Bottom of exploration at 5 ft. bgs.	5
6	434							6
7	433							7
8	432							8
9	431							9

**Legend**

Sample Type

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
 Approved by: AY

**Exploration Log B-12**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

*Project Address & Site Specific Location*  
6808 196th Street Southwest, Lynwood, Washington, 98036, SW corner of property, 10 ft E of dumpster enclosure

*Coordinates (Lat, Lon WGS84)*

47.8209, -122.3256 (est)

*Exploration Number*

**GP-01**

Ecology Well Tag No. BMF 722

*Contractor*  
Holt Services

*Equipment*  
Geoprobe 7800

*Sampling Method*  
Percussion hammer

*Ground Surface Elev. (NAVD88)*  
440' (est)

*Operator*  
Louie

*Exploration Method(s)*  
Direct push

*Work Start/Completion Dates*  
6/5/2019

*Top of Casing Elev. (NAVD88)*  
NA

*Depth to Water (Below GS)*  
No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	439	5" Flush mount, traffic-rated monument in concrete						1
2	438						No samples collected	2
3	437	1/4" Teflon tubing in 3/8" hydrated bentonite chips						3
4	436							4
5	435	Perforated stainless steel screen in 10-20 silica sand					Bottom of exploration at 5 ft. bgs.	5
6	434							6
7	433							7
8	432							8
9	431							9

**Legend**

Sample Type

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log GP-01**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

*Project Address & Site Specific Location*  
 6808 196th Street Southwest, Lynwood, Washington, 98036, Along S property boundary, 30 ft E of dumpster enclosure

*Coordinates (Lat, Lon WGS84)*

47.8209, -122.3255 (est)

*Exploration Number*

**GP-02**

*Contractor*  
Holt Services

*Equipment*  
Geoprobe 7800

*Sampling Method*  
Percussion hammer

*Ground Surface Elev. (NAVD88)*

440' (est)

*Ecology Well Tag No.*  
BMF 723

*Operator*  
Louie

*Exploration Method(s)*  
Direct push

*Work Start/Completion Dates*  
6/5/2019

*Top of Casing Elev. (NAVD88)*

NA

*Depth to Water (Below GS)*

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	439	5" Flush mount, traffic-rated monument in concrete						1
2	438						No samples collected	2
3	437	1/4" Teflon tubing in 3/8" hydrated bentonite chips						3
4	436							4
5	435	Perforated stainless steel screen in 10-20 silica sand					Bottom of exploration at 5 ft. bgs.	5
6	434							6
7	433							7
8	432							8
9	431							9

**Legend**

Sample Type

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
 Approved by: AY

**Exploration Log**  
**GP-02**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

*Project Address & Site Specific Location*  
 6808 196th Street Southwest, Lynwood, Washington, 98036, Along S property boundary, 40 ft W of 68th St curb

*Coordinates (Lat, Lon WGS84)*

47.8209, -122.3253 (est)

*Exploration Number*

**GP-03**

*Contractor*

Holt Services

*Equipment*

Geoprobe 7800

*Sampling Method*

Percussion hammer

*Ground Surface Elev. (NAVD88)*

440' (est)

Ecology Well Tag No. BMF 724

*Operator*

Louie

*Exploration Method(s)*

Direct push

*Work Start/Completion Dates*

6/5/2019

*Top of Casing Elev. (NAVD88)*

NA

*Depth to Water (Below GS)*

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	439	5" Flush mount, traffic-rated monument in concrete						1
2	438						No samples collected	2
3	437	1/4" Teflon tubing in 3/8" hydrated bentonite chips						3
4	436							4
5	435	Perforated stainless steel screen in 10-20 silica sand					Bottom of exploration at 5 ft. bgs.	5
6	434							6
7	433							7
8	432							8
9	431							9

**Legend**

Sample Type

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
 Approved by: AY

**Exploration Log GP-03**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

*Project Address & Site Specific Location*  
 6808 196th Street Southwest, Lynnwood, Washington, 98036, Along E  
 property boundary, 20 ft W of SW corner of building

*Coordinates (Lat, Lon WGS84)*

47.8210, -122.3257 (est)

*Exploration Number*

**GP-04**

*Contractor*

Holt Services

*Equipment*

Geoprobe 7800

*Sampling Method*

Percussion hammer

*Ground Surface Elev. (NAVD88)*

440' (est)

*Operator*

Louie

*Exploration Method(s)*

Direct push

*Work Start/Completion Dates*

6/5/2019

*Top of Casing Elev. (NAVD88)*

NA

*Depth to Water (Below GS)*

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							ASPHALT; Road surface	
1	439	5" Flush mount, traffic-rated monument in concrete	GP-04-1		PID=7.9 Sheen=Slight		<b>FILL</b> SAND WITH SILT AND GRAVEL (SW-SM); loose, slightly moist, medium grey; trace fines; sand fine to coarse, subangular; gravel fine to medium, subrounded; no odor	1
2	438		GP-04-2		PID=11.8 Sheen=Slight		SILT WITH GRAVEL (ML); soft, slightly moist, dark brown; fines low plasticity; gravel fine, subrounded; no odor	2
3	437	1/4" Teflon tubing in 3/8" hydrated bentonite chips						3
4	436							4
5	435	Perforated stainless steel screen in 10-20 silica sand					Bottom of exploration at 5 ft. bgs.	5
6	434							6
7	433							7
8	432							8
9	431							9

**Legend**

- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
 Approved by: AY

**Exploration Log**  
**GP-04**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, Co-located with GP-03

Coordinates (Lat, Lon WGS84)  
, (est)

Exploration Number

## GP-05

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holocene

Geoprobe 7822DT

Percussion hammer

440' (est)

Ecology Well Tag No.  
BNF 357

Operator

Exploration Method(s)

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Chris

Direct push

11/10/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	439	5" Flush mount, traffic-rated monument in concrete			PID=0.0 Sheen=VSS	ASPHALT; Road surface		1
2	438				PID=0.0 Sheen=OS	FILL SAND WITH SILT AND GRAVEL (SW-SM); appears medium dense, moist, gray; low plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor		2
3	437	1/4" Teflon tubing in 3/8" hydrated bentonite chips	S1		PID=0.0 Sheen=OS	SILTY SAND WITH GRAVEL (SM); appears dense, moist, brown; medium plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor		3
4	436							4
5	435							5
6	434		S2	GP-05-6 NWTPH-Dx, Gx, BTEXN	PID=0.5 Sheen=OS	ORGANIC SILT (OL); appears soft, moist, dark brown; low to medium plasticity; some organic debris; slight asphalt-like odor		6
7	433					VASHON TILL SILTY SAND (SM); appears denes, moist, gray-brown; low plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor		7
8	432	Perforated stainless steel screen in 10-20 silica sand			PID=0.2 Sheen=VSS			8
9	431					Bottom of exploration at 8 ft. bgs.		9

#### Legend

- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**GP-05**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

*Project Address & Site Specific Location*  
6808 196th Street Southwest, Lynwood, Washington, 98036, SE Property corner in driveway

*Coordinates (Lat, Lon WGS84)*  
, (est)

*Exploration Number*

**GP-06**

*Contractor*

*Equipment*

*Sampling Method*

*Ground Surface Elev. (NAVD88)*

Holocene

Geoprobe 7822DT

Percussion hammer

439' (est)

Ecology Well Tag No. BNF 358

*Operator*

*Exploration Method(s)*

*Work Start/Completion Dates*

*Top of Casing Elev. (NAVD88)*

*Depth to Water (Below GS)*

Chris

Direct push

11/10/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	438	5" Flush mount, traffic-rated monument in concrete			PID=0.1 Sheen=OS	ASPHALT; Road surface		1
2	437					<b>FILL</b> SAND WITH SILT (SP-SM); appears loose, moist, light brown; low plasticity fines; fine to coarse, mostly medium, subangular sand; trace fine to medium, subrounded gravel; no odor		2
3	436	1/4" Teflon tubing in 3/8" hydrated bentonite chips	S1	GP-06-2.5 NWTPH-Dx, Gx, BTEXN	PID=0.1 Sheen=OS	ORGANIC SILT (OL); appears soft, very moist, dark brown; low plasticity; mostly organic debris; no odor		3
4	435					SILTY SAND (SM); appears medium dense, very moist, light brown; low plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor		4
5	434	Perforated stainless steel screen in 10-20 silica sand				Bottom of exploration at 5 ft. bgs.		5
6	433							6
7	432							7
8	431							8
9	430							9

**Legend**

- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**GP-06**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, NE of NE corner of building, close to former UST locations

Coordinates (Lat, Lon WGS84)  
47.8211, -122.3254 (est)

Exploration Number

## MW-11

Ecology Well Tag No.  
BMF 726

Contractor  
Holt Services

Equipment  
Mobile Drilling B-59

Sampling Method  
Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)  
440' (est)

Operator  
John

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates  
6/10/2019

Top of Casing Elev. (NAVD88)  
NA

Depth to Water (Below GS)  
9.08' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SAND WITH SILT AND GRAVEL (SW-SM); loose, slightly moist, light grey; low plasticity fines; sand fine to coarse, subangular sand; fine to medium, subrounded gravel; moderate petroleum-like odor	
5	435			MW-11-1	SPT=3, 7, 5 PID=2688 Sheen=Slight			
				MW-11-6	SPT=1, 3, 13 PID=3057 Sheen=Slight		SILT WITH GRAVEL (ML); medium stiff, slightly moist, dark brown; low plasticity fines; fine, subrounded gravel; moderate petroleum-like odor	5
					SPT=20, 50/5		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); medium dense, slightly moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine, subrounded gravel; moderate petroleum-like odor	
10	430	▼ 6/20/2019 0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand ▽ 6/10/2019		MW-11-13	SPT=19, 24, 30  SPT=6, 11, 22 PID=11.2 Sheen=No sheen		becomes dense; wet; no odor	10
15	425			MW-11-18	SPT=39, 43, 50/5  SPT=38, 50/3 PID=1.3 Sheen=No sheen		GRAVEL WITH SILT AND SAND (GP-GM); very dense, wet, dark grey; medium plasticity fines; coarse, subangular sand; fine to coarse, subrounded gravel; no odor SILTY GRAVEL (GM); very dense, wet, dark grey; medium plasticity fines; medium to coarse, subrounded to subangular gravel; no odor	15
20	420			MW-11-25	SPT=50/4  SPT=50/3 PID=1.7 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SW-SM); very dense, moist, dark grey; medium plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded to subangular gravel; no odor	20
25	415				SPT=50/4 PID=2.2 Sheen=No sheen		Bottom of exploration at 25.5 ft. bgs.	25
30	410							30

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE1.GPJ January 28, 2021

#### Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▨ Grab sample

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-11**

Sheet 1 of 1



# Aloha Cafe - 180357

# Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 50 ft S of SE corner of building

Coordinates (Lat, Lon WGS84)

47.8209, -122.3254 (est)

Exploration Number

## MW-12

Ecology Well Tag No. BMF 727

Contractor

Holt Services

Equipment

Mobile Drilling B-59

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

John

Exploration Method(s)

8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

6/10/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

9.88' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips		MW-12-3	SPT=13, 15, 18 PID=0.3 Sheen=No sheen		<b>FILL</b> SAND WITH GRAVEL (SW); dense, slightly moist, light grey; trace fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	5
5	435				SPT=5, 3, 2			
		▼ 6/19/2019		MW-12-8	SPT=6, 15, 20 PID=0.8 Sheen=No sheen		SANDY SILT WITH GRAVEL (ML); hard, moist, medium brown; low plasticity fines; fine, subangular sand; fine, subrounded gravel; no odor	
10	430			MW-12-11.5	SPT=4, 9, 12 PID=0.8 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); medium dense, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subangular to subrounded gravel; no odor	10
		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand					becomes very dense	
15	425	▽ 6/10/2019		MW-12-15	SPT=15, 23, 28 PID=0.8 Sheen=No sheen		becomes wet	15
					SPT=26, 50/4 PID=3.8 Sheen=No sheen		becomes moist	
20	420				SPT=50/4 PID=0.5 Sheen=No sheen		slow drilling	20
				MW-12-25	SPT=50/4 PID=0.1 Sheen=No sheen		GRAVEL WITH SAND (GW); very dense, slightly moist, light grey; trace fines; fine to coarse, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	25
25	415						Bottom of exploration at 25.5 ft. bgs.	
30	410							30

### Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▨ Grab sample

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-12**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynnwood, Washington, 98036, Along S property boundary, 35 ft E of dumpster enclosure

Coordinates (Lat, Lon WGS84)

Exploration Number

47.8209, -122.3256 (est)

**MW-13**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holt Services

Mobile Drilling B-59

Autohammer; 140 lb hammer; 30" drop

440' (est)

Ecology Well Tag No. BMF 728

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

John

6/11/2019

NA

12.31' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=5, 5, 10 PID=0.9 Sheen=No sheen		FILL SAND WITH SILT AND GRAVEL (SW-SM); medium dense, slightly moist, dark brown; low plasticity fines, fine to coarse, subangular sand; fine, subrounded gravel; no odor	
5	435			MW-13-6	SPT=2, 2, 9 PID=0.8 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); loose, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	5
		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=19, 25, 31 PID=0.7 Sheen=No Sheen		SANDY SILT WITH GRAVEL (ML); stiff, moist, dark brown; low plasticity fines; fine, subangular sand; fine, subrounded gravel; some wood and charcoal debris; no odor	
10	430			MW-13-11	SPT=10, 16, 17 PID=0.9 Sheen=No sheen		SAND WITH SILT (SP-SM); dense, slightly moist, light brown; low plasticity fines; fine to medium, subangular sand; fine to medium, subangular to subrounded gravel; no odor	10
		6/19/2019 6/11/2019		MW-13-12.5	SPT=9, 19, 27 PID=1.2 Sheen=No sheen		SAND WITH GRAVEL (SP); dense, slightly moist, light brown; trace fines; fine to medium, subangular sand; fine, subrounded gravel; no odor	
					SPT=22, 27, 50/5 PID=2.5 Sheen=No sheen		VASHON TILL SAND WITH SILT AND GRAVEL (SW-SM); medium dense, moist, light grey; medium plasticity fines; fine to coarse, subangular sand; fine, subrounded gravel; no odor	15
15	425			MW-13-18	SPT=39, 50/4 PID=1.8 Sheen=No sheen		SILTY SAND (SM); dense, moist, dark grey; medium plasticity fines; fine, subangular sand; trace rounded gravel; no odor	15
					SPT=38, 50/3 PID=1.8 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); dense, wet, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to medium subangular to subrounded gravel; no odor	20
20	420			MW-13-25	SPT=50/5.5 PID=1.7 Sheen=No sheen		becomes very dense, moist; gravel fine to coarse	20
					SPT=40, 50/3 PID=1.9 Sheen=No sheen		becomes slightly moist	25
25	415						Bottom of exploration at 25.5 ft. bgs.	25
30	410							30

**Legend**

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)
- Grab sample

Water Level

- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-13**



### Aloha Cafe - 180357

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 5 ft N of NE corner of dumpster enclosure

### Monitoring Well Log

Coordinates (Lat, Lon WGS84)

47.8209, -122.3257 (est)

Exploration Number

**MW-14**

Ecology Well Tag No. BMF 729

Contractor

Holt Services

Equipment

Mobile Drilling B-59

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

John

Exploration Method(s)  
8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

6/11/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

13.25' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=3, 10, 7 PID=0.8 Sheen=No sheen		<b>FILL</b> SAND WITH SILT AND GRAVEL (SW-SM); medium dense, slightly moist, dark brown; low plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	
5	435				SPT=2, 2, 2 PID=2.5 Sheen=No sheen		charcoal fragments	5
					SPT=50/3		slow drilling, drill rig chatter	
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand		MW-14-10.5	SPT=16, 30, 28 PID=2.9 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); dense, moist, light brown; low plasticity fines; fine to medium, subangular sand; fine to medium, subrounded to subangular gravel; no odor	10
		▽ 6/11/2019		MW-14-12.5	SPT=18, 30, 28 PID=2.9 Sheen=No sheen		becomes wet	
15	425				SPT=50/4			15
				MW-14-17.5-D MW-14-17.5	SPT=50/5 PID=7.5 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); very dense, wet, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
20	420				SPT=50/3 PID=7.3 Sheen=No sheen		becomes moist	20
				MW-14-22.5	SPT=41, 50/1 PID=5 Sheen=No sheen			
25	415			MW-14-25	SPT=50/4 PID=11.5 Sheen=No sheen		SILTY SAND (SM); very dense, wet, dark grey; medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor	25
				MW-14-27.5	SPT=50/3 PID=12.5 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, dark grey; medium plasticity fines, fine to medium, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
30	410			MW-14-30	SPT=46, 50/6 PID=2.1 Sheen=No sheen		SILTY SAND (SM); very dense, wet, dark grey; medium plasticity fines; fine, subangular sand; trace subrounded gravel; no odor	30
							Bottom of exploration at 31 ft. bgs.	

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▨ Grab sample

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-14**

Sheet 1 of 1



# Aloha Cafe - 180357

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 5 ft SW of SW corner of building

# Monitoring Well Log

Coordinates (Lat, Lon WGS84)

47.8210, -122.3256 (est)

Exploration Number

**MW-15**

Ecology Well Tag No. BMF 730

Contractor

Holt Services

Equipment

Mobile Drilling B-59

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

John

Exploration Method(s)

8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

6/12/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

12.1' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=9, 12, 7 PID=13.6 Sheen=No sheen		FILL SAND WITH SILT AND GRAVEL (SW-SM); medium dense, slightly moist, light brown; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	
5	435				SPT=2, 2, 1 PID=60.8 Sheen=Slight		SANDY SILT (ML); soft, slightly moist, light grey; medium plasticity fines; fine, subangular sand; some wood and charcoal debris; very slight petroleum-like odor	5
				MW-15-7.5	SPT=17, 35, 50/6 PID=30.8 Sheen=Slight		SAND WITH SILT AND GRAVEL (SW-SM); very dense, slightly moist, light grey; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; some oxide staining; very slight petroleum-like odor	
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=8, 19, 16 PID=15000 Sheen=Moderate		VASHON TILL SILTY SAND WITH GRAVEL (SM); dense, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine, subrounded gravel; moderate to strong petroleum-like odor	10
		6/20/2019		MW-15-10.5	SPT=11, 26, 50/5 PID=15000 Sheen=Moderate		fine to medium, subrounded gravel	
15	425				SPT=16, 50/6 PID=703.4 Sheen=Slight			15
		6/12/2019		MW-15-17.5	SPT=50/4 PID=1887 Sheen=Slight		becomes wet, fine to coarse gravel	
20	420				SPT=50/6 PID=455.6 Sheen=No sheen		SAND (SP); very dense, moist, dark grey; trace fines; medium, subangular sand; moderate petroleum-like odor	20
				MW-15-25	SPT=50/5 PID=2807 Sheen=Slight		SILTY SAND WITH GRAVEL (SM); very dense, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine, subrounded gravel; moderate petroleum-like odor	
25	415				SPT=50/4 PID=52.5 Sheen=No sheen			25
				MW-15-25	SPT=50/5 PID=51.1		SAND WITH GRAVEL (SP); very dense, wet, dark grey; trace fines; medium, subangular sand; fine to medium, subrounded gravel; no odor	
30	410				SPT=45, 50/6 PID=14.3 Sheen=No sheen		GRAVEL WITH SAND (GW); very dense, wet, dark grey; trace fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	30
				MW-15-25			SILTY SAND (SM); very dense, moist, dark grey; low plasticity fines; fine, subangular sand; no odor	
							Bottom of exploration at 31 ft. bgs.	

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▨ Grab sample

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-15**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 2nd lane of  
196th St SW, 50 ft from 68th St

Coordinates (Lat, Lon WGS84)

47.8213, -122.3255 (est)

Exploration Number

**MW-16**

Ecology Well Tag No.  
BMF 732

Contractor

Holt Services

Equipment

Mobile Drilling B-59

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

John

Exploration Method(s)

8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

6/14/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

8.25' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SAND WITH SILT AND GRAVEL (SP-SM); dense, moist, medium grey; low to medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	
5	435			MW-16-6.5	SPT=16, 18, 29 PID=0.8 Sheen=Slight			5
		▼ 6/19/2019		MW-16-7.5	SPT=7, 16, 19 PID=1.6 Sheen=Slight			
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=6, 14, 21 PID=1.4 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); dense, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to coarse, subrounded gravel; no odor	10
		▽ 6/14/2019		MW-16-12.5	SPT=5, 23, 50-5 PID=1.4 Sheen=No sheen		becomes wet	
15	425				SPT=28, 36, 49 PID=1.5 Sheen=No sheen			15
				MW-16-17.5	SPT=50/5 PID=1.4 Sheen=No sheen		SANDY SILT WITH GRAVEL (ML); hard, moist, light grey; low plasticity fines; fine, subangular sand; fine, subrounded gravel; no odor	
20	420				SPT=50/5 PID=2.0 Sheen=No sheen		+ medium gravel	20
				MW-16-25	SPT=50/1 PID=1.1 Sheen=No sheen			
25	415				SPT=50/6 PID=1.1 Sheen=No sheen			25
							Bottom of exploration at 25.5 ft. bgs.	
30	410							30

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▨ Grab sample

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-16**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 2nd lane of  
196th St SW, 20 ft from 68th St

Coordinates (Lat, Lon WGS84)

47.8213, -122.3254 (est)

Exploration Number

**MW-17**

Ecology Well Tag No.  
BMF 731

Contractor

Holt Services

Equipment

Mobile Drilling B-59

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

John

Exploration Method(s)

8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

6/14/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

7.83' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, medium grey; low to medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	
5	435	6/14/2019 6/19/2019	Split Barrel	MW-17-6	SPT=15, 23, 30 PID=1.1 Sheen=No sheen			5
10	430	6/14/2019	Split Barrel	MW-17-8.5	SPT=9, 11, 12 PID=0.7 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); medium dense, moist, dark grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	10
15	425	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand	Split Barrel	MW-17-10	SPT=3, 10, 22 PID=1.1 Sheen=No sheen		becomes wet	15
20	420		Split Barrel	MW-17-20	SPT=4, 10, 14 PID=0.6 Sheen=No sheen		becomes very dense	20
25	415		Split Barrel	MW-17-25	SPT=50/4 PID=1.3 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SW-SM); very dense, wet, medium grey; medium plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	25
			Split Barrel		SPT=50/5 PID=1.5 Sheen=No sheen		becomes light brown	
			Split Barrel		SPT=40, 50/2 PID=1.1 Sheen=No sheen		+ coarse gravel; becomes moist	
			Split Barrel		SPT=50/5 PID=1.1 Sheen=No sheen		Bottom of exploration at 25.5 ft. bgs.	
30	410							30

**Legend**

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)
- Grab sample

Water Level

- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-17**

Sheet 1 of 1



# Aloha Cafe - 180357

# Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, NE corner of  
O'Yeah Tasty Restaurant

Coordinates (Lat, Lon WGS84)

47.8211, -122.3258 (est)

Exploration Number

**MW-18**

Contractor

Holt Services

Equipment

CME 300

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

Kyle

Exploration Method(s)

8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

7/15/2019

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; Road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SAND WITH SILT AND GRAVEL (SW-SM); dense, slightly moist, orange brown; low to medium plasticity fines; fine to coarse, subangular sand; fine, subrounded to subangular gravel; no odor	
5	435			MW-18-6.5	SPT=3, 13, 27 PID=0.3 Sheen=No sheen			5
				MW-18-8	SPT=18, 32, 24 PID=1.1 Sheen=No sheen			
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand		MW-18-10	SPT=15, 24, 22 PID=0.1 Sheen=No sheen			10
		▽ 7/15/2019					<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); very dense, moist, medium grey; medium plasticity fines; fine to coarse, subangular sand; fine to coarse, subrounded to subangular gravel; no odor	
15	425			MW-18-15	SPT=16, 39, 38 PID=0.2 Sheen=No sheen			15
					SPT=29, 50/4 PID=0.2 Sheen=No sheen		SILT (MH); hard, moist, medium grey; medium plasticity fines; trace fine to medium sand; no odor	
					SPT=50/3 PID=1.5 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SW-SM); very dense, moist, medium grey; low to medium plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	
20	420			MW-18-20 / FDUP-1	SPT=50/3 PID=0.2 Sheen=No sheen			20
					SPT=50/3 PID=0.2 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, medium grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subangular to subrounded gravel; no odor	
					SPT=50/3 PID=0.8 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SW-SM); very dense, slightly moist, medium grey; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	
25	415				SPT=50/4 PID=0.4 Sheen=No sheen		Bottom of exploration at 25.5 ft. bgs.	25
30	410							30

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)
- ▢ Grab sample

Water Level

▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-18**

Sheet 1 of 1



# Aloha Cafe - 180357

# Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 30' W of SW corner of NE building of Chri-Mar Apartments

Coordinates (Lat, Lon WGS84)  
47.8208, -122.3257 (est)

Exploration Number

## MW-19

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holt Services

Mobile Drilling B-59

Autohammer; 140 lb hammer; 30" drop

440' (est)

Ecology Well Tag No.  
BMF 675

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Mitch

7/16/2019

NA

10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; road surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=12, 20, 32 PID=0.1 Sheen=No sheen		<b>FILL</b> SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, brown; fine, subangular sand; fine to coarse, subangular gravel; no odor	
5	435				SPT=30, 50/5 PID=0.0 Sheen=No sheen		SAND WITH SILT (SP-SM); very dense, slightly moist, grey brown; fine, subangular sand; no odor	5
		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand		MW-19-6.0	SPT=22, 50/5 PID=0.0 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, grey brown; fine, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
10	430	7/16/2019		MW-19-8.5	SPT=15, 36, 36 PID=0.0 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND (SM); very dense, moist, brown; fine, subangular sand; fine, subrounded gravel; no odor	10
15	425			MW-19-13.5	SPT=34, 50/6 PID=0.0 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, grey brown; fine to medium, subangular sand; fine, subrounded gravel; no odor	15
20	420			MW-19-18.5	SPT=50/5 PID=0.0 Sheen=No sheen		SAND WITH SILT (SP-SM); very dense, slightly moist, grey brown; fine to medium, subangular sand; some fine, subrounded gravel; no odor	20
25	415			MW-19-23.5	SPT=50/4 PID=0.1 Sheen=No sheen			25
30	410						Bottom of exploration at 30 ft. bgs.	30

### Legend

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)
- Grab sample

Water Level

Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DRB  
Approved by: AY

**Exploration Log**  
**MW-19**

Sheet 1 of 1



### Aloha Cafe - 180357

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, NE corner of  
6808 parking lot, ~5' W of Aloha Cafe sign

### Monitoring Well Log

Coordinates (Lat, Lon WGS84)

47.8212, -122.3253 (est)

Exploration Number

**MW-20**

Ecology Well Tag No.  
BNF 485

Contractor

Holocene

Operator

Matt

Equipment

HSA Foremost B-58

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Work Start/Completion Dates

7/30/2020

Ground Surface Elev. (NAVD88)

440' (est)

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

8.06' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					FILL	
5	435			MW-20-5	SPT=4, 7, 17 PID=3.4 Sheen=No sheen		SILTY SAND (SM); medium dense, moist, dark brown; medium plasticity fines; fine to coarse subangular sand; no odor	5
		7/30/2020 7/31/2020		MW-20-8	SPT=12, 18, 24 PID=125.4 Sheen=No sheen		SAND WITH SILT (SP-SM); medium dense, moist, grey-brown; low plasticity fines; fine to coarse subangular sand; no odor	
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand		MW-20-13	SPT=10, 18, 17 PID=4.0 Sheen=No sheen		VASHON TILL SAND WITH SILT (SP-SM); dense, very moist, grey; low plasticity fines; fine to coarse subangular sand; petroleum-like odor	10
					SPT=7, 10, 13 PID=3.6 Sheen=No sheen		SAND WITH SILT (SP-SM); dense, wet, grey; low plasticity fines; fine to coarse subangular sand; petroleum-like odor	
15	425				SPT=10, 22, 42 PID=4.4 Sheen=No sheen		SAND (SP); dense, wet, grey; fine to medium subangular sand; petroleum-like odor	15
					SPT=22, 50/5 PID=6.7 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); dense, wet, grey; medium plasticity fines; fine to coarse subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
20	420				SPT=50/5 PID=5.4 Sheen=No sheen		SAND WITH SILT (SP-SM); medium dense, wet, grey; low plasticity fines; fine to coarse subangular sand; medium to coarse, subangular to subrounded gravel	20
					SPT=50/4 PID=2.4 Sheen=No sheen		SILTY GRAVEL WITH SAND (GM); very dense, wet, grey; low plasticity fines, medium to coarse subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
25	415				SPT=50/6 PID=2.8 Sheen=No sheen		SAND WITH SILT (SW-SM); very dense, wet, red brown; low plasticity fines; fine to coarse subangular sand; fine, subangular gravel; no odor	25
							SILTY SAND (SM); very dense, wet, grey; medium plasticity fines; fine to coarse subangular sand; fine, subangular trace gravel; no odor	
							Bottom of exploration at 25.5 ft. bgs.	

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-20**



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, E of drive-thru window, E of building

Coordinates (Lat, Lon WGS84)

47.8211, -122.3253 (est)

Exploration Number

**MW-21**

Ecology Well Tag No.  
BNF 488

Contractor

Holocene

Equipment

HSA Foremost B-58

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

Matt

Exploration Method(s)

8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

7/28/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

9.05' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SAND WITH SILT (SP-SM); loose, slightly moist, light brown; low plasticity fines; fine to medium, subangular sand with some coarse, subangular sand; trace fine to medium, subrounded gravel; no odor	
5	435			MW-21-5	SPT=4, 6, 3 PID=4.9 Sheen=Slight sheen			5
					SPT=6, 3, 1 PID=5.5 Sheen=Very slight sheen		SANDY SILT (ML); soft, moist, dark red-brown; medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; trace charcoal fragments; no odor	
					SPT=25, 37, 28			
10	430	▼ 7/31/2020 ▽ 7/28/2020		MW-21-10	SPT=10, 12, 18 PID=108.3 Sheen=Slight sheen		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); medium dense, wet, grey; low to medium plasticity fines; fine to medium, subangular sand; fine to medium, subangular to subrounded gravel; slight petroleum-like odor	10
					SPT=10, 10, 12 PID=18.7 Sheen=No sheen		no odor	
15	425	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand		MW-21-17.5	SPT=15, 16, 14 PID=15.4 Sheen=No sheen		becomes very wet; trace coarse, subangular sand	15
					SPT=42, 50/6 PID=6.3 Sheen=No sheen		SANDY SILT (ML); hard, moist, grey; low to medium plasticity fines; fine, subangular sand; trace fine, subrounded gravel; no odor	
20	420				SPT=50/4 PID=5.7 Sheen=No sheen		SILTY SAND (SM); very dense, very moist, grey; low to medium plasticity fines; fine to medium, subangular sand with trace coarse, subangular sand; trace fine to medium, subrounded gravel; no odor	20
					SPT=50/3 PID=5.8 Sheen=No sheen		becomes moist	
25	415				SPT=50/5 PID=4.6 Sheen=No sheen		Bottom of exploration at 25.5 ft. bgs.	25

**Legend**

- No Soil Sample Recovery
- ◼ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-21**

Sheet 1 of 1



### Aloha Cafe - 180357

### Environmental Exploration Log

*Project Address & Site Specific Location*  
 6808 196th Street Southwest, Lynwood, Washington, 98036, ~25' E of drive-thru window, 3' NW of MW-21

*Coordinates*

NA

*Exploration Number*

**MW-21A**

*Contractor*

Holocene

*Equipment*

HSA Foremost B-58

*Sampling Method*

Autohammer; 140 lb hammer; 30" drop

*Ground Surface Elev. (NAVD88)*

440' (est)

*Operator*

Matt

*Exploration Method(s)*

8.5" OD X 4.25" ID Hollow-Stem Auger

*Work Start/Completion Dates*

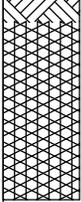
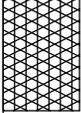
7/30/2020

*Top of Casing Elev. (NAVD88)*

NA

*Depth to Water (Below GS)*

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		 Surface restored with concrete   Boring backfilled with 3/8" hydrated bentonite chips					ASPHALT; paved parking lot surface  <b>FILL</b> SAND WITH SILT (SP-SM); loose, slightly moist, light brown; low plasticity fines; fine to medium, subangular sand; trace fine to medium, subangular to subrounded gravel; no odor	
5	435			MW-21A-2.5	SPT=4, 5, 3 PID=2.7 Sheen=Slight sheen		Bottom of exploration at 4 ft. bgs.	5
10	430							10
15	425							15
20	420							20
25	415							25

**Legend**

-  No Soil Sample Recovery
-  Split Barrel 2" X 1.375" (SPT)

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
 Approved by: AY

**Exploration Log**  
**MW-21A**



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, S of garage door of Aloha Cafe

Coordinates (Lat, Lon WGS84)

47.8210, -122.3255 (est)

Exploration Number

**MW-22**

Ecology Well Tag No.  
BNF 481

Contractor

Holocene

Equipment

HSA Foremost B-58

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

Matt

Exploration Method(s)

8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

7/28/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

10.78' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=10, 12, 4 PID=3.4 Sheen=No sheen		<b>FILL</b> SILTY SAND WITH GRAVEL (SM); medium dense, moist, grey brown; low plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	
5	435				SPT=2, 2, 2 PID=2.1 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); loose, very moist, grey-brown; low to medium plasticity fines; fine to medium, subangular sand; fine, subangular to subrounded gravel; no odor	5
		7/28/2020			SPT=10, 26, 27 PID=4.7 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND (SM); very dense, very moist, grey-brown; low plasticity fines; fine to medium, subangular sand; trace fine to medium, subangular gravel; no odor	
10	430	7/31/2020			SPT=5, 4, 15 PID=6.7 Sheen=Very slight sheen		SILTY SAND (SM); dense, wet, grey; low to medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; very slight petroleum-like odor	10
		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=11, 20, 21 PID=23.9 Sheen=No sheen		medium plasticity fines; no odor	
15	425				SPT=12, 25, 50/4 PID=70.2 Sheen=Slight sheen			15
					SPT=33, 50/4 PID=25.1 Sheen=No sheen		becomes moist	
20	420				SPT=26, 50/5 PID=5.9 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); some coarse, subangular sand; low to medium plasticity fines; fine to medium, subangular sand; trace fine to coarse subrounded gravel; trace granite composition; no odor	20
					SPT=50/5 PID=4.4 Sheen=No sheen		some coarse, subangular sand becomes sandier	
25	415				SPT=50/4 PID=1.8 Sheen=No sheen		Bottom of exploration at 25.5 ft. bgs.	25

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-22**

Sheet 1 of 1



### Aloha Cafe - 180357

### Environmental Exploration Log

*Project Address & Site Specific Location*  
6808 196th Street Southwest, Lynwood, Washington, 98036, Co-located with MW-22, 2' W

*Coordinates*

NA

*Exploration Number*

**MW-22A**

*Contractor*

Holocene

*Equipment*

HSA Foremost B-58

*Sampling Method*

Autohammer; 140 lb hammer; 30" drop

*Ground Surface Elev. (NAVD88)*

440' (est)

*Operator*

Matt

*Exploration Method(s)*  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

*Work Start/Completion Dates*

7/30/2020

*Top of Casing Elev. (NAVD88)*

NA

*Depth to Water (Below GS)*

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Surface restored with concrete					ASPHALT; paved parking lot surface	
		Boring backfilled with 3/8" hydrated bentonite chips		MW-22A-2.5	SPT=11, 10, 11 PID=2.7 Sheen=Slight sheen		<b>FILL</b> SILTY SAND WITH GRAVEL (SM); medium dense, moist, grey brown; low plasticity fines, fine to medium, subangular sand; fine to medium, subangular to subrounded gravel; no odor	
5	435				SPT=12, 12, 7  Blows (non-SPT)=6, 6, 5		no recovery on on 5-6' sample, sample attempted 6-7' with ModCal sampler	5
10	430						Bottom of exploration at 7.5 ft. bgs.	10
15	425							15
20	420							20
25	415							25

**Legend**

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-22A**



### Aloha Cafe - 180357

### Environmental Exploration Log

*Project Address & Site Specific Location*  
6808 196th Street Southwest, Lynwood, Washington, 98036, Co-located with MW-22, 2' E

*Coordinates*

*Exploration Number*

NA

**MW-22B**

*Contractor*

*Equipment*

*Sampling Method*

*Ground Surface Elev. (NAVD88)*

Holocene

HSA Foremost B-58

Autohammer; 140 lb hammer; 30" drop

440' (est)

*Operator*

*Exploration Method(s)*  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

*Work Start/Completion Dates*

*Top of Casing Elev. (NAVD88)*

*Depth to Water (Below GS)*

Matt

7/30/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Surface restored with concrete					ASPHALT; paved parking lot surface	
		Boring backfilled with 3/8" hydrated bentonite chips					<b>FILL</b> SILTY SAND (SM); loose, moist, medium brown; low to medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor	
5	435			MW-22B-5	SPT=Pushed with tube; no blow count PID=4.0 Sheen=Very slight sheen		Bottom of exploration at 5.5 ft. bgs.	5
10	430							10
15	425							15
20	420							20
25	415							25

**Legend**

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-22B**

Sheet 1 of 1



# Aloha Cafe - 180357

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, 20' N of dumpster enclosure

# Monitoring Well Log

Coordinates (Lat, Lon WGS84)

47.8210, -122.3257 (est)

Exploration Number

**MW-23**

Ecology Well Tag No. BNF 482

Contractor

Holocene

Equipment

HSA Foremost B-58

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

Matt

Exploration Method(s)  
8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

7/28/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

12.35' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=12, 15, 11 PID=2.9 Sheen=No sheen		<b>FILL</b> SANDY SILT (ML); slightly moist, medium dense, grey brown; medium plasticity fines; fine, subangular sand; no odor	
5	435				SPT=2, 1, 0 PID=3.2 Sheen=Slight sheen		SAND WITH SILT AND GRAVEL (SP-SM); medium dense, slightly moist, grey brown; low plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; no odor	5
		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=24, 24, 37 PID=5.4 Sheen=Slight sheen		<b>VASHON TILL</b> SAND WITH SILT AND GRAVEL (SW-SM); very dense, moist, grey brown; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	
10	430				SPT=12, 22, 14 PID=7.8 Sheen=Slight sheen		becomes dense and grey	10
		▼ 7/31/2020			SPT=23, 25, 50/5 PID=677.2 Sheen=Medium sheen		SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subangular to subrounded gravel; moderate petroleum-like odor	
15	425				SPT=18, 40, 50/5 PID=79.2 Sheen=Slight sheen		becomes wet; approximately 2 inch thick lens of sand with silt and gravel at 15.25 feet	15
		▽ 7/28/2020			SPT=36, 41, 50/4 PID=80.5 Sheen=Slight sheen		SANDY SILT WITH GRAVEL (ML); hard, wet, grey; medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded gravel; very slight petroleum-like odor	
20	420				SPT=50/5 PID=39.7 Sheen=Very slight sheen		SILTY SAND (SM); very dense, moist, grey; low to medium plasticity fines; fine to medium, subangular sand; trace fine to medium, subrounded gravel; no odor	20
					SPT=50/5 PID=5.7 Sheen=No sheen			
25	415				SPT=50/4 PID=5.1 Sheen=No sheen		3 in cobble stuck in sampler	25
							Bottom of exploration at 25.5 ft. bgs.	

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-23**

Sheet 1 of 1



### Aloha Cafe - 180357

Project Address & Site Specific Location  
 6808 196th Street Southwest, Lynwood, Washington, 98036, S of Aloha Cafe, on planter. 1" N of Chri-Mar Apartments fence

### Monitoring Well Log

Coordinates (Lat, Lon WGS84)

47.8209, -122.3256 (est)

Exploration Number

**MW-24**

Ecology Well Tag No. BNF 487

Contractor

Holocene

Equipment

HSA Diedrich D-50 Turbo

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

RJ

Exploration Method(s)  
 8.5" OD X 4.25" ID  
 Hollow-Stem Auger

Work Start/Completion Dates

7/29/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

14.36' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					<b>FILL</b> SILTY SAND (SM); loose, slightly moist, dark brown; fines low plasticity; fine to coarse, subangular sand; trace fine gravel; contains wood fragments approximately 1-2 inches long; no odor	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=5, 9, 8 PID=8.8 Sheen=Organic sheen			
5	435				SPT=4, 2, 4		3 in cobble in sampler	5
		7/29/2020			SPT=26, 29, 29 PID=1.6 Sheen=Slight sheen		SILTY SAND (SM); dense, moist, dark brown; low to medium plasticity fines; fine to coarse, subangular sand; trace fine, subangular to subrounded gravel; trace wood debris < 1 in.; no odor	
10	430				SPT=24, 24, 37 PID=1.4 Sheen=Slight sheen		<b>VASHON TILL</b> SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey; low to medium plasticity fines; fine to coarse, subangular sand; fine to coarse, subangular to subrounded gravel; no odor becomes wet	10
		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=9, 17, 25 PID=2.1 Sheen=Slight sheen		SILTY SAND WITH GRAVEL (SM); very dense, wet, grey brown; medium plasticity fines; fine to coarse, subangular sand; fine to coarse, subangular to subrounded gravel; trace wood debris < 1 in.; no odor	
		7/31/2020			SPT=22, 34, 50/6 PID=1.6 Sheen=Very slight sheen		SILTY SAND WITH GRAVEL (SM); very dense, wet, grey; low to medium plasticity fines; fine to coarse, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	15
15	425				SPT=50/6 PID=1.6 Sheen=Very slight sheen			
20	420				SPT=50/6 PID=1.9 Sheen=Very slight sheen			
					SPT=50/5 PID=0.4 Sheen=No sheen		SILTY SAND (SM); very dense, wet, grey; low to medium plasticity fines; fine to medium, subangular sand; trace fine to medium, subangular to subrounded gravel; no odor	
25	415				SPT=50/6 PID=1.9 Sheen=No sheen		SILT WITH SAND (ML); hard, wet, grey; medium plasticity fines; fine to coarse subangular sand; no odor	25
							Bottom of exploration at 25.5 ft. bgs.	

MW-24-10.5

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE\1.GPJ January 28, 2021

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
 Approved by: AY

**Exploration Log**  
**MW-24**



### Aloha Cafe - 180357

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, NE corner of 6820 parking lot

### Monitoring Well Log

Coordinates (Lat, Lon WGS84)

47.8212, -122.3258 (est)

Exploration Number

**MW-25**

Ecology Well Tag No. BNF 484

Contractor

Holocene

Equipment

HSA Foremost B-58

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

Matt

Exploration Method(s)

8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates

7/30/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

9.16' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=8, 15, 30 PID=1.8 Sheen=No sheen		<b>FILL</b> SAND WITH SILT AND GRAVEL (SP-SM); dense, slightly moist, light brown; low plasticity fines; fine to medium, subangular sand; fine to medium, subangular gravel; some asphalt and glass fragments; no odor	
5	435	7/30/2020		MW-25-8	SPT=18, 50/4 PID=2.0 Sheen=No sheen		<b>VASHON TILL</b> SILTY SAND (SM); dense, slightly moist, grey-brown; low to medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor	5
		7/31/2020			SPT=15, 28, 32 PID=1.9 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); very dense, slightly moist, grey-brown; low plasticity fines; fine to medium, subangular sand; fine to coarse, subangular to subrounded gravel; no odor; poor recovery due to cobble in sampler	
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=16, 23, 33 PID=2.0 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey; low to medium plasticity fines; fine to medium, subangular sand; trace coarse sand; fine to coarse, subangular to subrounded gravel; no odor; apparent water table	10
					SPT=28, 40, 50/5 PID=1.6 Sheen=No sheen		SILTY SAND (SM); very dense, very moist, grey; low to medium plasticity fines; fine to medium, subangular sand; trace fine, subrounded gravel; no odor	
15	425				SPT=20, 45, 50/3 PID=2.3 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey; low to medium plasticity fines; fine to medium, subangular sand; trace coarse sand; fine to medium, subangular to subrounded gravel; no odor	15
					SPT=50/4 PID=1.1 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SP-SM); very dense, very moist, grey; low plasticity fines; fine to medium, subangular sand with some coarse sand; fine to coarse, subangular to subrounded gravel; no odor	
20	420				SPT=50/3 PID=1.7 Sheen=No sheen		SAND WITH SILT AND GRAVEL (SW-SM); very dense, wet, grey; low plasticity sand; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	20
					SPT=50/4 PID=1.0 Sheen=No sheen		SILTY SAND (SM); very dense, very moist, grey; medium plasticity fines; fine to medium subangular sand; trace fine subangular gravel; no odor	
25	415				SPT=50/4 PID=1.5 Sheen=No sheen		Bottom of exploration at 25.5 ft. bgs.	25

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-25**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynnwood, Washington, 98036, E of E edge of entryway overhang for Nielson Bros Carpets

Coordinates (Lat, Lon WGS84)

47.8210, -122.3260 (est)

Exploration Number

**MW-26**

Contractor

Holocene

Equipment

HSA Diedrich D-50 Turbo

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

440' (est)

Operator

RJ

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

7/29/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

14.36' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SAND WITH SILT (SP-SM); dense, moist, medium brown; low to medium plasticity fines; fine to medium, subangular sand with some coarse sand; fine, subrounded trace gravel; no odor	
5	435				SPT=4, 9, 23 PID=0.7 Sheen=No sheen		SILTY SAND (SM); dense, moist, grey-brown; low plasticity fines; fine to medium, subangular sand; fine, subrounded subtrace gravel; no odor	5
					SPT=26, 41, 50/6 PID=0.5 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); dense, moist, grey-brown; low plasticity fines; fine to medium, subangular sand; medium to coarse, subangular to subrounded gravel; no odor	
10	430	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=33, 36, 44 PID=1.4 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, grey-brown; low plasticity fines; fine to medium, subangular sand with some coarse sand; fine to coarse, subangular to subrounded granite and pegmatite gravel; no odor	10
		7/29/2020					<b>VASHON TILL</b> SILTY SAND (SM); very dense, very moist, grey; low plasticity fines; fine to medium, subangular sand with some coarse sand; fine to medium, subangular to subrounded gravel; no odor	
		7/31/2020			SPT=50/6 PID=1.2 Sheen=No sheen		becomes wet	
15	425				SPT=37, 50/5 PID=1.0 Sheen=No sheen		SANDY SILT (ML); hard, wet, grey; medium plasticity fines; fine to medium, subtrace, subangular sand; fine, subrounded gravel; no odor	15
					SPT=50/1 PID=1.4 Sheen=No sheen		SILTY SAND (SM); very dense, wet, grey; low to medium plasticity fines; fine to medium, subangular sand; fine to medium, subrounded trace gravel; no odor; slow drilling, slight rig chatter	
20	420				SPT=50/3 PID=1.0 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); very dense, moist, grey; low plasticity fines; fine to medium, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	20
					SPT=50/3 PID=1.1 Sheen=No sheen		SILTY SAND (SM); very dense, moist, grey; low plasticity fines; fine to medium, subangular sand; trace fine to coarse, subangular to subrounded gravel; no odor	
25	415				SPT=50/6 PID=1.3 Sheen=No sheen		SANDY SILT (ML); hard, moist, grey; low to medium plasticity fines; fine to medium, subangular sand; no odor	25
							Bottom of exploration at 25.5 ft. bgs.	

MW-26-12.5

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-26**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, S of Nielson Bros Carpets, behind building, W of storage shed

Coordinates (Lat, Lon WGS84)

47.8208, -122.3260 (est)

Exploration Number

**MW-27**

Contractor

Holocene

Equipment

HSA Diedrich D-50 Turbo

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

447' (est)

Operator

RJ

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

7/29/2020

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface	
		2" Schedule 40 PVC in 3/8" hydrated bentonite chips					<b>FILL</b> SILTY SAND (SM); loose, slightly moist, red-brown; low to medium plasticity fines; fine to coarse, subangular sand; trace fine to medium, subangular to subrounded gravel; no odor	
445					SPT=9, 8,9 PID=1.7 Sheen=No sheen		SILTY SAND (SM); loose, slightly moist, grey-brown; low plasticity fines; fine to coarse, subangular sand; no odor	
5					SPT=12, 26, 38 PID=1.6 Sheen=Slight sheen		<b>VASHON TILL</b> SILTY SAND (SM); medium dense, moist, red-brown; low to medium plasticity fines; fine to coarse, subangular sand; no odor	5
440					SPT=11, 14, 26 PID=3.1 Sheen=No sheen		SILTY SAND (SM); dense, moist, grey; low plasticity fines, fine to medium, subangular sand; no odor	
10		7/29/2020		MW-27-10.5	SPT=12, 23, 26 PID=2.4 Sheen=No sheen		SILTY SAND (SM); medium dense, moist, red-brown; medium plasticity fines, fine to medium, subangular sand; no odor becomes grey	10
435		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand			SPT=50/5 PID=1.9 Sheen=No sheen		SILTY SAND WITH GRAVEL (SM); dense, very moist, grey; low to medium plasticity fines; fine to coarse, subangular sand; fine to coarse, subangular to subrounded gravel; no odor	
15					SPT=38, 50/2 PID=0.6 Sheen=Very slight sheen		SILTY SAND WITH GRAVEL (SM); very dense, wet, grey-brown; low to medium plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	15
430					SPT=50/6 PID=0.6 Sheen=No sheen		becomes very moist, grey	
20					SPT=50/2 PID=0.4 Sheen=No sheen		slow drilling, rig chatter from 20-21 feet	20
425					SPT=50/2 PID=0.7 Sheen=No sheen		1/2 in. layer of sand	
25					SPT=50/3 PID=1.1 Sheen=No sheen		becomes moist	25
420							Bottom of exploration at 25.25 ft. bgs.	

**Legend**

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

▽ Water Level ATD

Water Level

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log**  
**MW-27**

Sheet 1 of 1



### Aloha Cafe - 180357

### Monitoring Well Log

Project Address & Site Specific Location  
6808 196th Street Southwest, Lynwood, Washington, 98036, Back alley of 6820 building, 4' W of MW-27

Coordinates (Lat, Lon WGS84)  
, (est)

Exploration Number

**MW-28**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holocene

HSA Diedrich D-50 Turbo

Autohammer; 140 lb hammer; 30" drop

447' (est)

Ecology Well Tag No.  
BNF 464

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

RJ

8/14/2020

NA

No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
445		8" Flush mount, traffic-rated monument in concrete					ASPHALT; paved parking lot surface no samples; see MW-27 for lithology	5
440								10
435		2" Schedule 40 PVC in 3/8" hydrated bentonite chips						15
430							slow drilling; large cobble on boring, auger sticking and stalling	20
425				SPT=50/3 PID=1.9 Sheen=No sheen			<b>VASHON TILL</b> SAND WITH SILT (SW-SM); very dense, moist, grey-brown; low plasticity fines; fine to coarse, subangular sand; fine to medium, subrounded gravel; no odor	25
420				SPT=50/2 PID=1.7 Sheen=No sheen			SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey-brown; low plasticity fines; fine to coarse, subangular sand; fine to medium, subangular to subrounded gravel; no odor	30
415		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand		SPT=50/2 PID=2.2 Sheen=No sheen			SAND WITH SILT AND GRAVEL (SP-SM); very dense, very moist, grey-brown; low plasticity fines; fine to medium, subangular sand; fine to coarse, subrounded gravel; no odor	35
410				SPT=50/5 PID=2.6 Sheen=No sheen			SILT (ML); hard, moist, grey-brown; low plasticity fines; trace fine to coarse, subrounded gravel; no odor	40
405				SPT=50/3 PID=2.0 Sheen=No sheen			SAND WITH SILT (SP-SM); very dense, very moist, grey-brown; low plasticity fines; fine to medium, subangular sand; fine to coarse, subrounded gravel; no odor	
				SPT=50/3 PID=3.8 Sheen=No sheen			SILTY SAND WITH GRAVEL (SM); very dense, very moist, grey-brown; low to medium plasticity fines; fine to medium, subangular trace fine to medium, subrounded gravel; no odor	
				SPT=50/6 PID=3.3 Sheen=No sheen			SILT (ML); hard, moist, grey-brown; low plasticity fines; no odor	
				SPT=50/5 PID=5.5 Sheen=No sheen			SAND WITH SILT (SP-SM); very dense, very moist, grey-brown; low plasticity fines; mostly medium, subangular sand; no odor Bottom of exploration at 40.5 ft. bgs.	

**Legend**

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)

Water Level

No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DWU  
Approved by: AY

**Exploration Log MW-28**

Sheet 1 of 1

## **APPENDIX B**

### **Geophysical Survey Report**

# **GEOPHYSICAL INVESTIGATION REPORT**

**ALOHA CAFE SITE  
6808 196<sup>TH</sup> STREET SW  
LYNNWOOD, WASHINGTON**

**FOR**

**ASPECT CONSULTING LLC  
BOTHELL, WASHINGTON**

**JUNE 17, 2019**

**PHILIP H. DUOOS  
GEOPHYSICAL CONSULTANT**

June 17, 2019

Our Ref.: 13336-19

Mr. Andrew Yonkofski  
Aspect Consulting LLC  
350 Madison Ave. N.  
Bainbridge Island, WA 98110

**REPORT:** Geophysical Investigation  
Aloha Cafe Site  
6808 196<sup>th</sup> Street SW  
Lynnwood, Washington

Dear Mr. Yonkofski:

This letter report summarizes the results of the investigation that I performed on June 3. The primary purpose of the investigation was to locate possible underground storage tanks (USTs) and possible fuel lines associated with the former service station as well as other utilities. A comprehensive utility locating survey was beyond the scope of work.

The survey area was investigated using electromagnetic (EM-61) and ground penetrating radar (GPR) methods. A brief Radiodetection utility locator scan was performed to locate an electrical utility. A brief description of the methods is attached.

The GPR survey indicates a large former excavation with no large objects in the eastern area of the site, which coincides with the approximate location of the former large fuel USTs, indicating that they have been removed from the site. The GPR data seems to indicate another, smaller former excavation near the northwest corner of the building, which may indicate another former UST location. The known UST on the south side of the building was detected. Another probable UST is located on the north side of the building.

Numerous pipes were interpreted from the data, many of them are probably the old fuel lines. Two reinforced concrete slabs that have been paved over with asphalt are interpreted from the data, and are associated with the former pump island to the north of the building.

## **INTERPRETATION RESULTS**

**Figure 1** is a sketch map which shows the interpretation results as well as various reference features including the building, sidewalk, visible utility features, monitoring wells and metal posts. The narrow strips of landscaped areas along the north and east edges of the site were surveyed. The northeast corner of the site was not investigated due to the dense landscaping vegetation.

The former excavations are shown by a brown hachured dashed line. Numerous probable pipes extend to the edge of the large excavation on the east side and are probably fuel lines as well as with power and control lines inside conduit. The numerous probable pipes in the vicinity of the buried concrete slabs makes the interpretation difficult of their precise locations in some areas.

The initial scope of the survey area was to the north and east of the building. I extended the survey along the south side of the building to obtain data over the known UST so as to have data over a known feature. On the west side of the site I happened to be walking the equipment back to my vehicle and detected the probable pipe extending from the west side of the building. I extended the survey over this portion of the site and along with the pipe, there is a possible smaller former excavation in this area. The data does not extend far enough to the west to determine the west edge of the possible excavation.

The locations of the known UST (south side) and the probable UST (north side) are shown in orange, and indicates the centerline and the ends of the USTs. The diameters of the USTs are not able to be determined from the data. Above the northern UST there is a small GPR target just below the asphalt layer that is interpreted to be a possible fill port.

Several other discrete GPR targets were observed in the data and may indicate random pieces of small debris, large cobbles or boulders or similar objects. Two small Moderate EM anomalies were observed in the EM-61 data and may indicate small amounts of buried metal. These anomalies did not have any large corresponding GPR targets. The building, buried concrete slabs and numerous metal well covers and other metal surface features limited the interpretation of the EM data. The depths to the tops of the various features are shown on the sketch map and are based on the GPR data.

The electrical line that heads northeast from the building was located and marked in the field using the Radiodetection utility locator. Several of the pipes to the northeast of the building in proximity to proposed well MW-13 were marked on the ground based on field analysis of the GPR data.

## METHODOLOGY

The geophysical surveys were referenced to numerous reference baselines that were marked at 10-foot intervals using 300-foot long tape measures and pink spray paint. Coordinate 80E, 20N is at the southeast corner of the concrete slab on the east side of the building.

The electromagnetic survey was performed using a Geonics EM-61 High Resolution Metal Detector with data digitally recorded and downloaded to a laptop computer. EM-61 data were recorded at approximate 1-foot intervals along each survey line. EM-61 survey lines were spaced 5 feet apart and oriented in two directions over the area of interest.

The EM-61 data are shown on the data contour map (**Figure 2**), which also shows the survey lines used during both the EM and GPR investigations. The various sources of interference as well as the buried reinforced concrete slabs are obvious in the EM data. The effects of the two USTs are observed, but are more evident in the profile line data (not shown). The UST's were very evident in the GPR data.

GPR data were obtained using a GSSI SIR 3000 Digital Radar with a 400 MHz antenna along lines spaced 5 feet apart and oriented in two directions (north-south and east-west) over the area of interest. The GPR obtained depths of penetration of about ten feet or more over most of the site.

**Figure 3** is an example GPR data profile along Line 55N just north of the building. Several pipes, two discrete GPR targets and a strong reflection from the probable UST are observed. The shallow buried reinforced concrete slab is observed, as well as the large former excavation on the east site of the site. The excavation area is notable due to the change in the very shallow surface layer (asphalt patch) and also the lack of natural soil layering. The former excavation is probably filled with a very homogenous material such as compacted sand.

The use of these techniques provided a rapid and non-intrusive means of investigating the area of interest for possible USTs and utilities. However, because of the numerous variables involved in geophysical investigations, there is a possibility that some features may not have been detected. Only direct observations using test pits or other means can ultimately characterize subsurface conditions.

Please contact me if you have any questions or comments regarding this information, or if you require further assistance.

Sincerely,



Philip H. Duos  
Geophysical Consultant



Attachments:

- Description of Methods
- Figure 1: Interpretation Results Map
- Figure 2: EM-61 Data Contour Map
- Figure 3: Example GPR Data Profile

## **DESCRIPTION OF METHODS**

### **ELECTROMAGNETICS (EM-61)**

The EM-61 is a high-resolution metal detector that can detect both ferrous and non-ferrous metallic objects. It is a rapid, wheel-mounted system requiring one operator, and digitally records data at a high density (usually at 1-foot intervals or less along a survey line).

The EM-61 utilizes time-domain EM theory, and uses a pulsed primary magnetic field to induce EM currents in metallic objects below the instrument. The decay of these currents over time is measured by two receiver coils, and digitally recorded for further processing. The relative response of the anomalies on the two coils can often be evaluated to provide a depth estimate of the buried metal. The EM-61 can detect a 55-gallon drums at depths of over 5 feet, and will also respond to small shallow objects only inches in diameter.

The EM-61 is not affected by changes in subsurface conductivity due to soil and moisture conditions. It is also less sensitive than other methods to surface metal such as buildings, fences, and vehicles as it is focused to detect objects directly below (and above) the receiver coils. However, this also requires that spacing between survey lines should be small to provide adequate coverage.

### **GROUND PENETRATING RADAR**

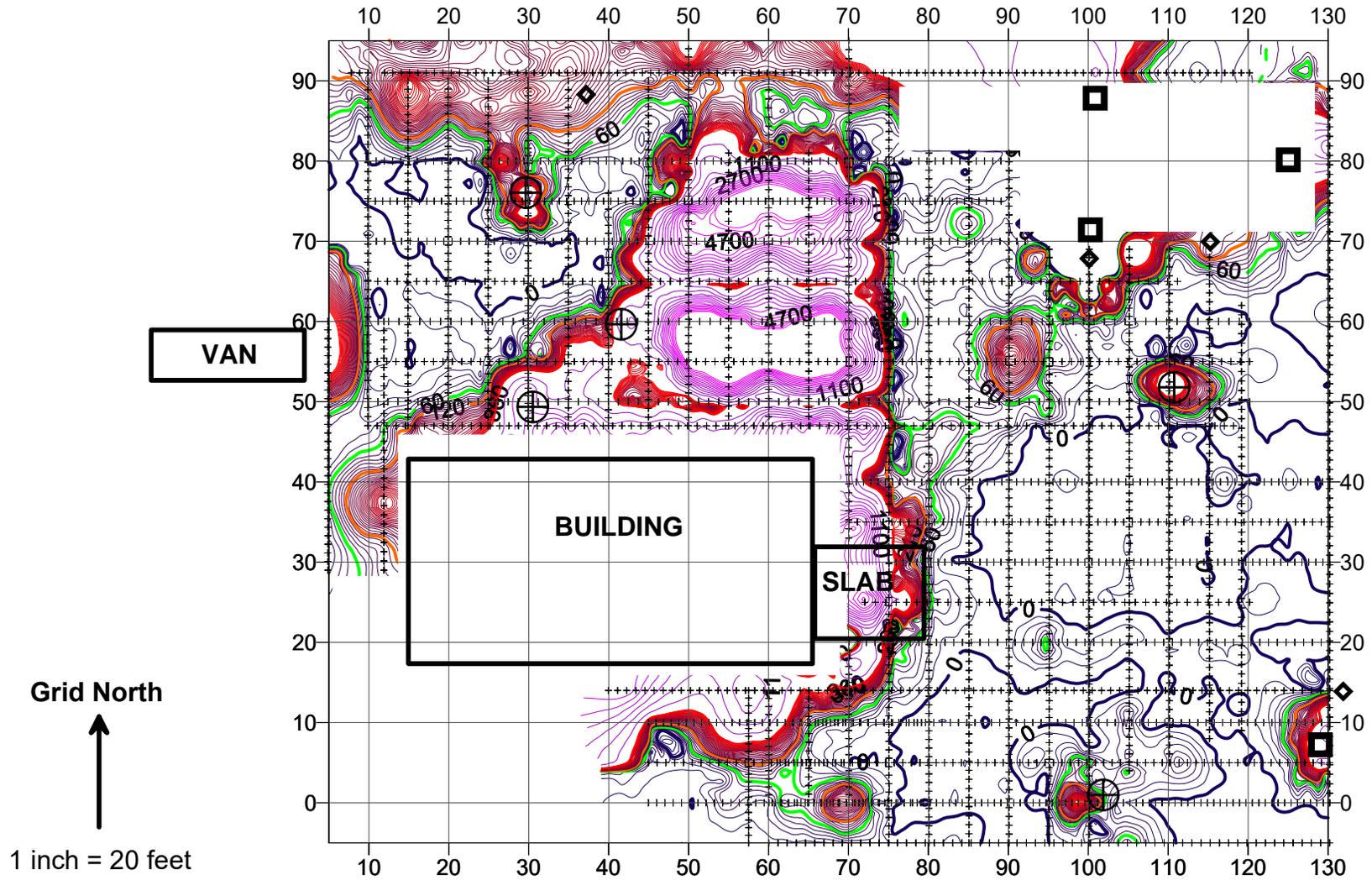
Some of the uses of GPR include locating buried tanks and drums, delineating boundaries of landfills and trenches, and defining voids and geologic stratigraphy. Although other techniques can also provide this information, GPR is less affected by cultural interferences such as overhead powerlines, buildings, and fences. GPR can also provide higher resolution of the target in many cases. A variety of antennas can be used depending on subsurface conditions and the objective of the survey. Resolution of shallow objects requires higher frequencies, while lower frequencies work better for deeper investigations.

Several factors can affect the effectiveness of the GPR method including reinforced concrete at the surface, the presence of highly conductive materials (such as clays and water), the size, depth, and physical property of the target and; in stratigraphic investigations, the conductivity contrast between stratigraphic units. The presence of numerous buried objects may mask objects and/or stratigraphy below.

### **RADIODETECTION UTILITY LOCATING**

The Radiodetection RD4000 is an electromagnetic instrument that is used to locate utilities (such as metal pipes, electrical conduit, and communication lines). A handheld receiver unit detects the presence of electromagnetic fields in the pipes. These fields may be caused by the 50/60 Hz energy in active powerlines, or can be induced by VLF radio frequency energy passing through the earth. Most metal utilities can be located using the VLF field that is induced by a world-wide system of communication transmitters. In cases where a valve, vent pipe, or other portion of the utility is accessible, a small VLF transmitter can be used to enhance detectability. This portable transmitter can be connected directly onto or located near the pipe.



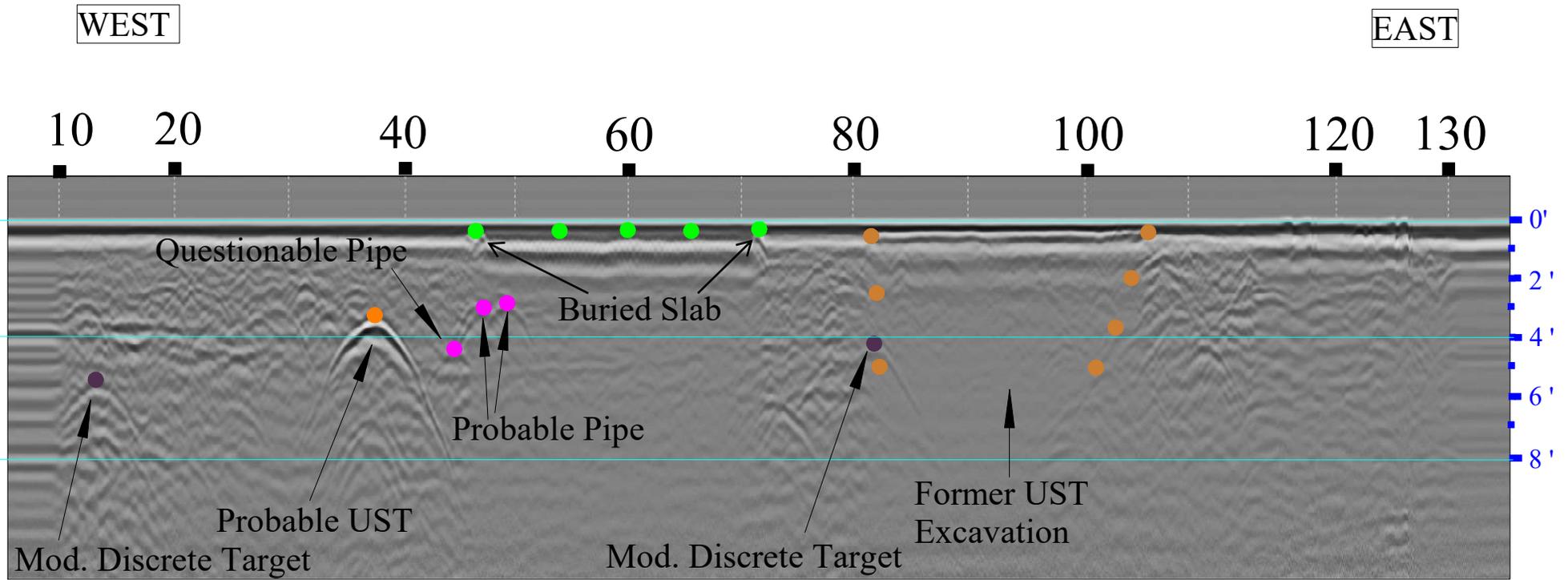


Data Range: -40 - 400 ppt  
 Contour Interval: 10 ppt

Data Range: 700 to 5,900 ppt  
 Contour Interval: 400 ppt (magenta)

- ⊕ Monitor Well Cover
- Metal Utility
- ◆ Metal Post

**EM-61 DATA CONTOUR MAP**  
 ALOHA CAFE SITE  
 6808 196th Street SW  
 Lynnwood, Washington  
 PN 1336-19, June 17, 2019 **FIG. 2**



**EXAMPLE GPR PROFILE**

Line 55 N

400 MHz Antenna

ALOHA CAFE SITE

LYNNWOOD, WASHINGTON

June 17, 2019

**FIG. 3**

## **APPENDIX C**

### **Laboratory Analytical Reports**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 11, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on July 29, 2020 from the Texaco Strickland PO 180357, F&BI 007493 project. There are 11 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0811R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 29, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 007493 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
007493 -01	MW-22-7.5
007493 -02	MW-22-10
007493 -03	MW-22-12.5
007493 -04	MW-22-16
007493 -05	MW-22-25
007493 -06	MW-23-8
007493 -07	MW-23-12.5
007493 -08	MW-23-15
007493 -09	MW-23-18
007493 -10	MW-23-25
007493 -11	MW-21-5
007493 -12	MW-21-10
007493 -13	MW-21-17.5
007493 -14	MW-21-25
007493 -15	B-11-5.5
007493 -16	B-11-10.5
007493 -17	B-11-15
007493 -18	B-11-18
007493 -19	B-11-22.5
007493 -20	MW-26-5
007493 -21	MW-26-10.5
007493 -22	MW-26-12.5
007493 -23	MW-26-22.5
007493 -24	MW-27-8
007493 -25	MW-27-10.5
007493 -26	MW-27-15
007493 -27	MW-27-22.5
007493 -28	MW-24-8
007493 -29	MW-24-10.5
007493 -30	MW-24-13
007493 -31	MW-24-22.5
007493 -32	DUP-3

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

Date Extracted: 08/05/20

Date Analyzed: 08/05/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (% Recovery) (Limit 58-139)
MW-22-10 007493-02	<5	90
MW-22-12.5 007493-03	<5	90
MW-23-25 007493-10	<5	92
Method Blank 00-1395 MB	<5	89

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

Date Extracted: 08/04/20

Date Analyzed: 08/04/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
MW-22-10 007493-02	<50	<250	90
MW-22-12.5 007493-03	<50	<250	91
MW-23-25 007493-10	<50	<250	91
Method Blank 00-1762 MB	<50	<250	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22-10	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/04/20	Lab ID:	007493-02
Date Analyzed:	08/05/20	Data File:	080510.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	102	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22-12.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/04/20	Lab ID:	007493-03
Date Analyzed:	08/05/20	Data File:	080511.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	0.068
m,p-Xylene	0.11
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-25	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/04/20	Lab ID:	007493-10
Date Analyzed:	08/05/20	Data File:	080512.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	0.047
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/04/20	Lab ID:	00-1719 mb
Date Analyzed:	08/04/20	Data File:	080409.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-Gx**

Laboratory Code: 007493-02 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	100	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 008002-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	14,000	93 b	154 b	73-135	49 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	88	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 007432-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	2.5	<0.03	93	96	29-129	3
Toluene	mg/kg (ppm)	2.5	<0.05	90	92	35-130	2
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	90	92	32-137	2
m,p-Xylene	mg/kg (ppm)	5	<0.1	90	91	34-136	1
o-Xylene	mg/kg (ppm)	2.5	<0.05	92	94	33-134	2
Naphthalene	mg/kg (ppm)	2.5	0.26	96	95	14-157	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	2.5	97	68-114
Toluene	mg/kg (ppm)	2.5	91	66-126
Ethylbenzene	mg/kg (ppm)	2.5	94	64-123
m,p-Xylene	mg/kg (ppm)	5	97	78-122
o-Xylene	mg/kg (ppm)	2.5	98	77-124
Naphthalene	mg/kg (ppm)	2.5	94	63-140

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

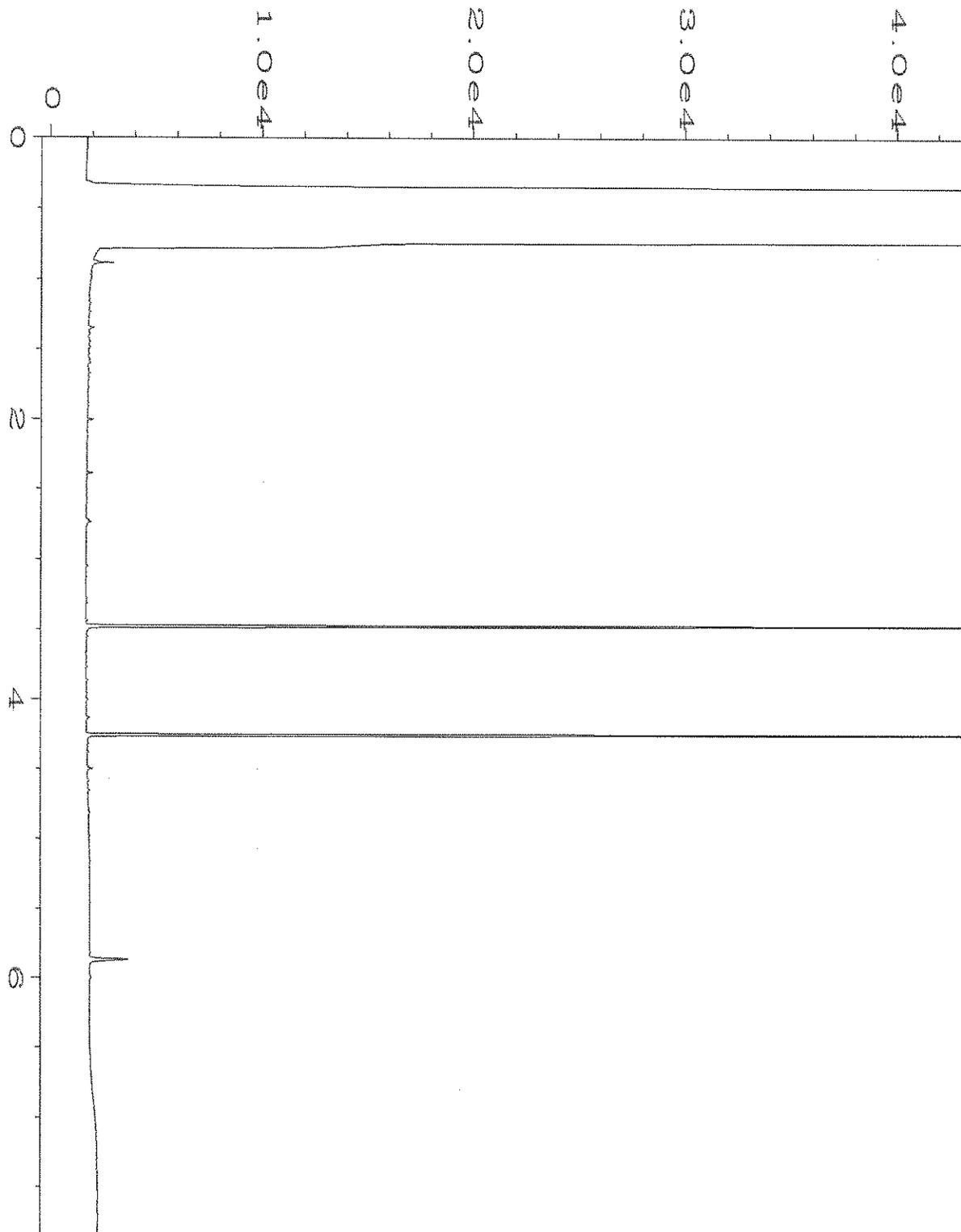
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

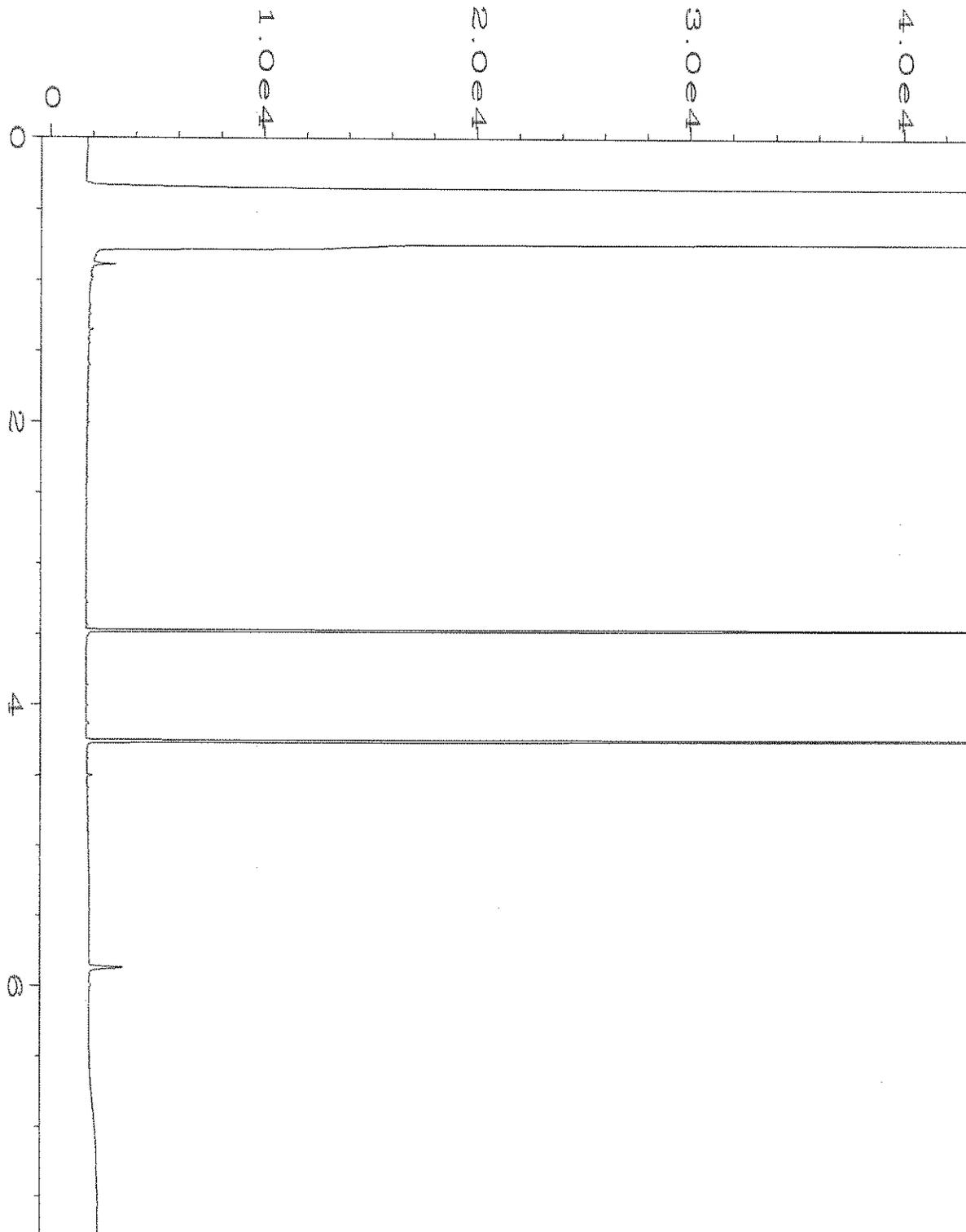
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

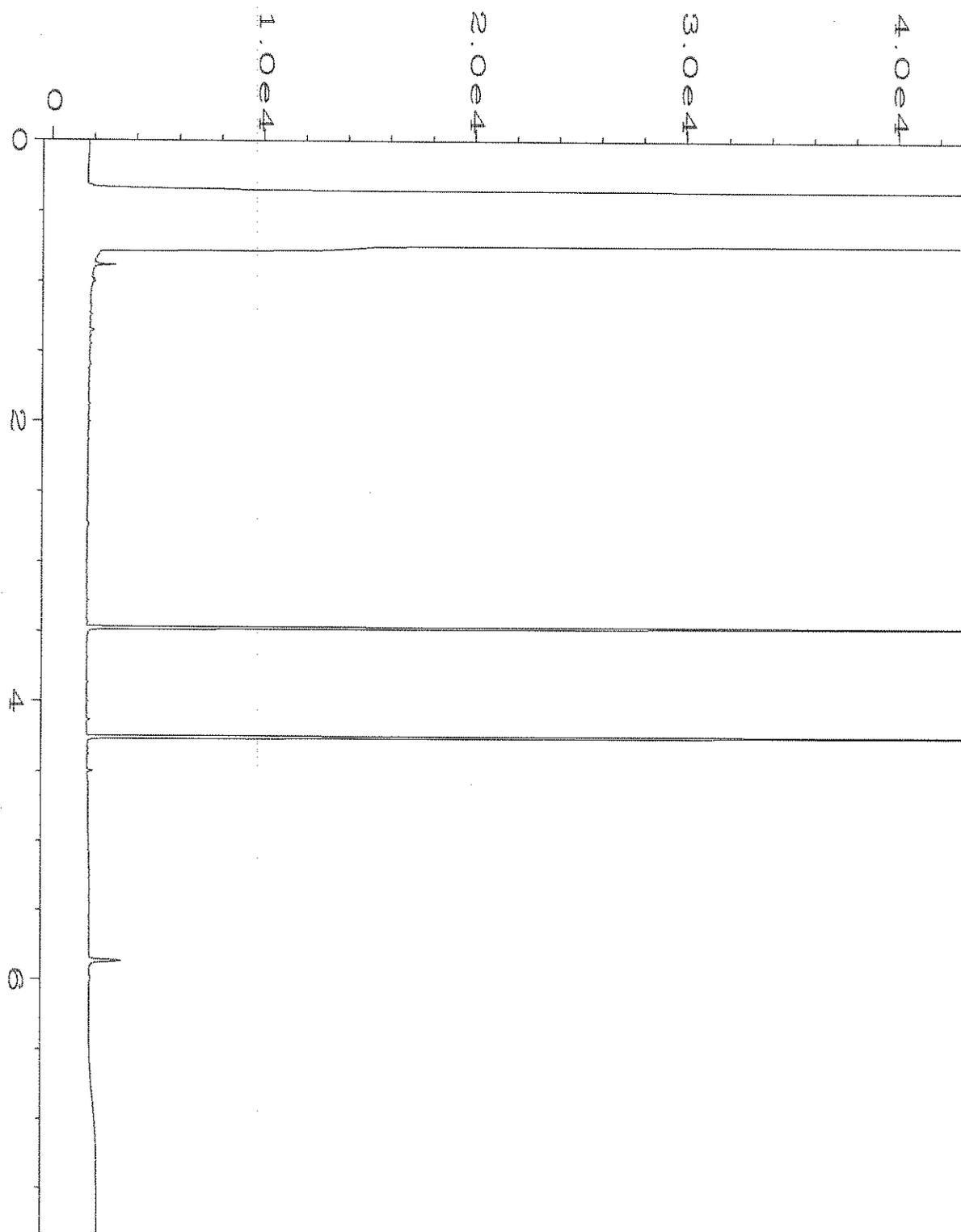
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



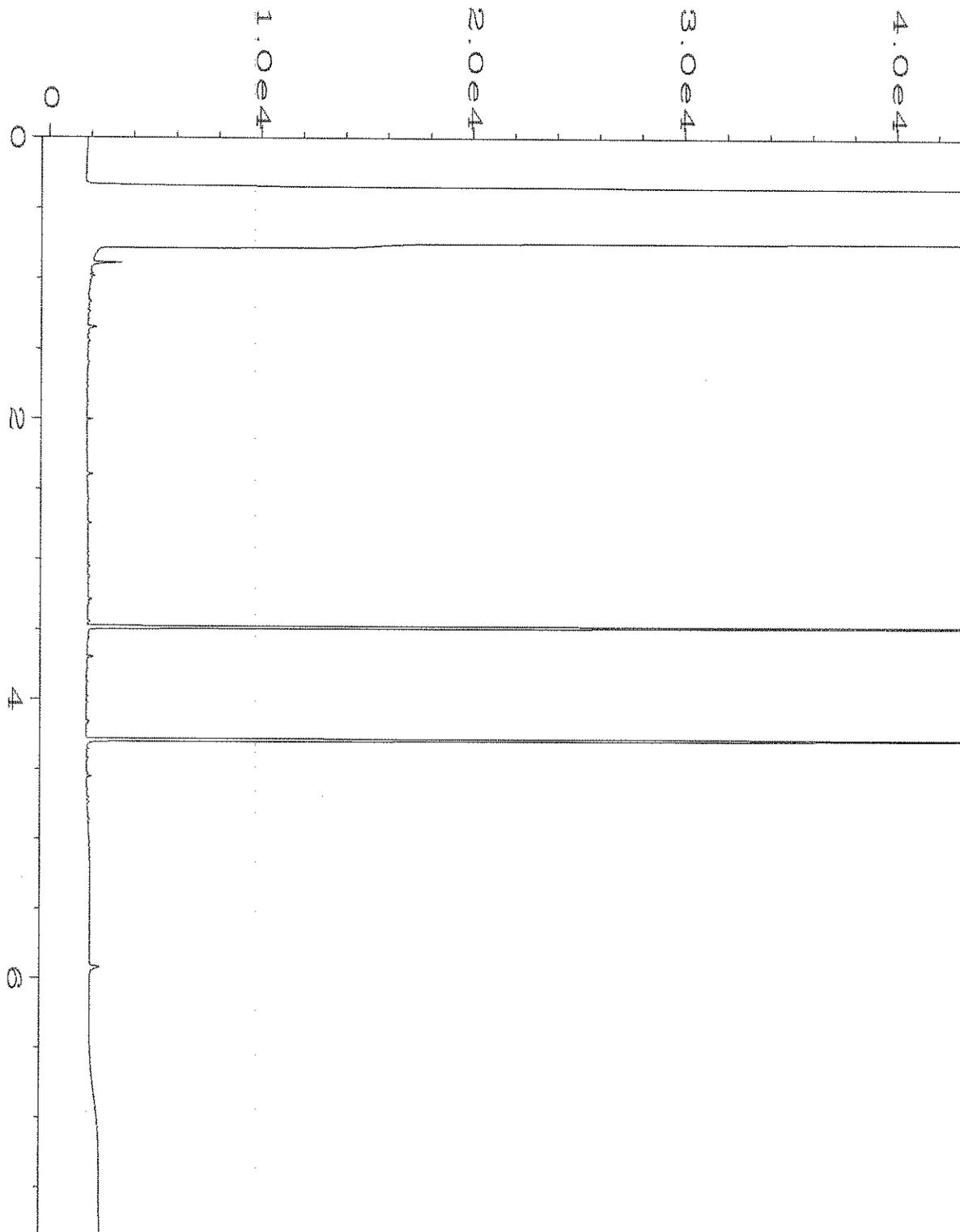
Data File Name	: C:\HPCHEM\4\DATA\08-04-20\040F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 40
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 007493-02	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 04 Aug 20 06:21 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 20 07:20 AM		



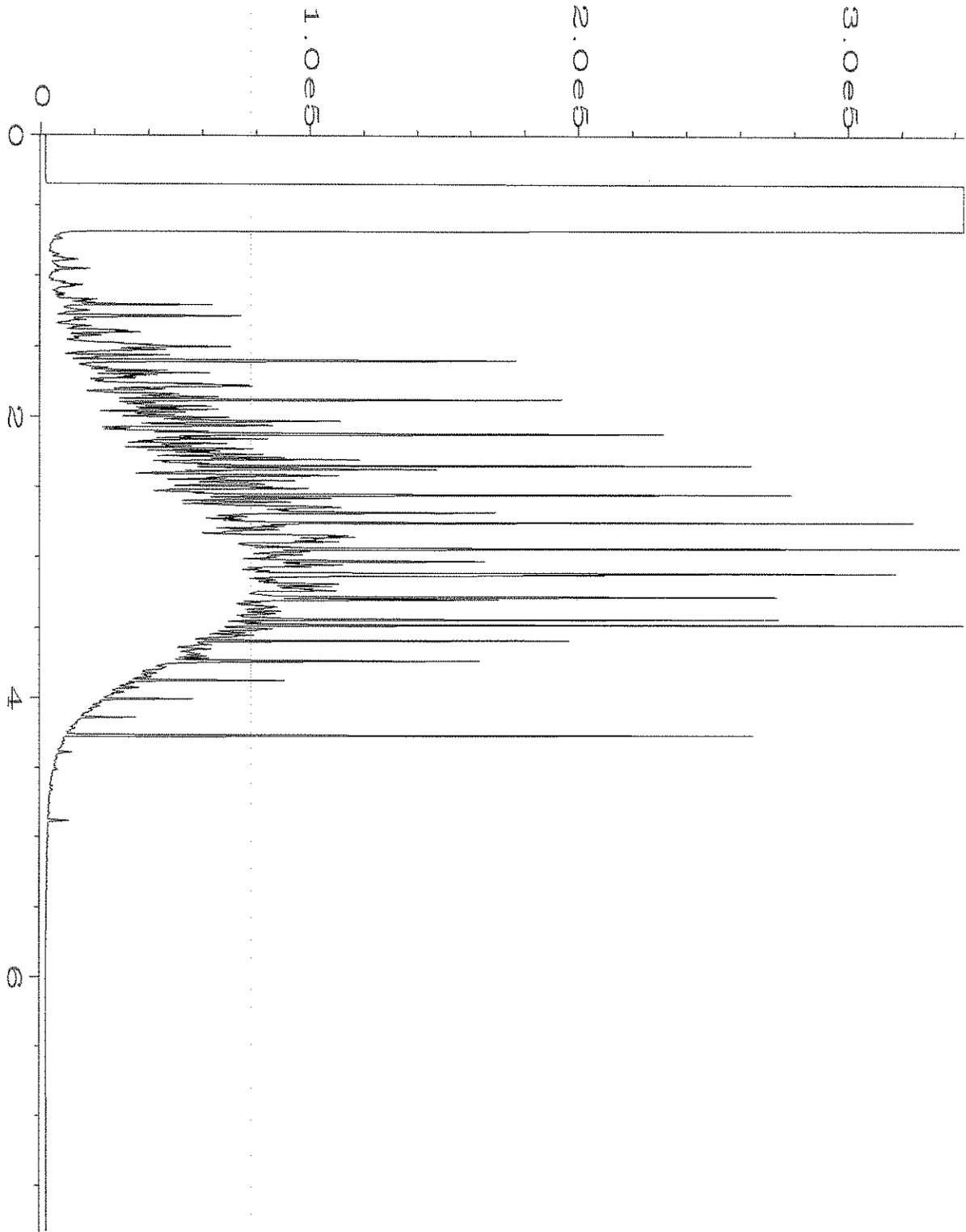
Data File Name	: C:\HPCHEM\4\DATA\08-04-20\041F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 41
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 007493-03	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 04 Aug 20 06:34 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 20 07:20 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-04-20\042F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 42
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 007493-10	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 04 Aug 20 06:47 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 20 07:20 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-04-20\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 00-1762 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 04 Aug 20 08:58 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 20 07:20 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-04-20\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 60-170B	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 04 Aug 20 02:49 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 20 07:20 AM		



Report To Andrew Yorkoski / Aaron Liffers  
 Company Aspect Consulting  
 Address 710 2nd Ave Ste. 530  
 City, State, ZIP Seattle, WA 98104  
 Phone 2064135411 Email ayorkoski@aspectconsulting.com

SAMPLERS (signature) [Signature]  
 PROJECT NAME Texas Shakedown  
 REMARKS Protect specific Pls? - Yes /   
 PO # 180357  
 INVOICE TO APD

TURNAROUND TIME  
 Standard turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Archive samples  
 Other  
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXU BAKK	Hold Product				
MW-21-5	11A-E	7/28/20	1318	SOI1	5	X	X							X				
MW-21-10	12		1328			X	X							X				
MW-21-17S	13		1340			X	X							X				
MW-21-25	14		1353												X			
B-11-05	15		1459			X	X							X				
B-11-10S	16		1511			X	X							X				
B-11-15	17		1526			X	X							X				
B-11-18	18		1533											X				
B-11-22S	19		1544											X				
MW-26-5	20	7/29/20	0754	SOI1	5									X				

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE: [Signature] PRINT NAME: David Unk  
 Received by: [Signature] Relinquished by: [Signature]  
 COMPANY: Aspect Consulting DATE: 7/29/20 TIME: 12:07  
 COMPANY: FBI DATE: 7/29/20 TIME: 17:04  
 Received by: \_\_\_\_\_ Samples received at: 3 o/c

Report To: Andrew Yoshida / Aspect Consulting  
 Company: Aspect Consulting  
 Address: 710 2nd Ave, Ste 550  
 City, State, ZIP: Seattle, WA, 98104  
 Phone: 206-435-5411 Email: ayoshida@aspectconsulting.com

SAMPLERS (signature) [Signature]  
 PROJECT NAME: Texas Strickland  
 REMARKS: Project specific RLS? - Yes / No  
 PO #  
 INVOICE TO

TURNAROUND TIME  
 Standard turnaround  
 RUSH  
 Rush charges authorized by:  
 SAMPLE DISPOSAL  
 Archive samples  
 Other  
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes							
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082											
MU-26-105	21A-E	7/24/20	0812	Soil	5																		
MU-26-125	23A-D		0818			X	X																
MU-26-225	23A-D		0855																				
MU-27-8	24A-E		1056																				
MU-27-105	25		1100			X	X																
MU-27-15	26		1112																				
MU-27-225	27		1200																				
MU-24-8	25		1410																				
MU-24-105	29		1417			X	X																
MU-24-13	30		1420																				

SIGNATURE  
 Relinquished by: [Signature]  
 Received by: [Signature]  
 Relinquished by: [Signature]  
 Received by: [Signature]

PRINT NAME  
 Relinquished by: David Drake  
 Received by: David Drake

COMPANY  
 Relinquished by: Aspect Consulting  
 Received by: Aspect Consulting

DATE TIME  
 Relinquished by: 7/29/20 12:07  
 Received by: 7/29/20 14:01

Samples received at 3 oc

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 4, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on July 29, 2020 from the Texaco Strickland PO 180357, F&BI 007493 project. There are 25 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0804R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 29, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 007493 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
007493 -01	MW-22-7.5
007493 -02	MW-22-10
007493 -03	MW-22-12.5
007493 -04	MW-22-16
007493 -05	MW-22-25
007493 -06	MW-23-8
007493 -07	MW-23-12.5
007493 -08	MW-23-15
007493 -09	MW-23-18
007493 -10	MW-23-25
007493 -11	MW-21-5
007493 -12	MW-21-10
007493 -13	MW-21-17.5
007493 -14	MW-21-25
007493 -15	B-11-5.5
007493 -16	B-11-10.5
007493 -17	B-11-15
007493 -18	B-11-18
007493 -19	B-11-22.5
007493 -20	MW-26-5
007493 -21	MW-26-10.5
007493 -22	MW-26-12.5
007493 -23	MW-26-22.5
007493 -24	MW-27-8
007493 -25	MW-27-10.5
007493 -26	MW-27-15
007493 -27	MW-27-22.5
007493 -28	MW-24-8
007493 -29	MW-24-10.5
007493 -30	MW-24-13
007493 -31	MW-24-22.5
007493 -32	DUP-3

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

Date Extracted: 07/30/20

Date Analyzed: 07/30/20 and 07/31/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 58-139)
MW-22-16 007493-04	<5	97
MW-22-25 007493-05	<5	95
MW-23-8 007493-06	<5	95
MW-23-12.5 007493-07	<5	97
MW-23-18 007493-09	<5	95
MW-21-5 007493-11	<5	96
MW-21-10 007493-12	<5	97
MW-21-17.5 007493-13	<5	97
B-11-5.5 007493-15	12	96
B-11-10.5 007493-16	<5	98

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

Date Extracted: 07/30/20

Date Analyzed: 07/30/20 and 07/31/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 58-139)
B-11-15 007493-17	<5	90
MW-26-12.5 007493-22	<5	99
MW-27-10.5 007493-25	<5	97
MW-24-10.5 007493-29	<5	94
DUP-3 007493-32	<5	97
Method Blank 00-1390 MB	<5	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

Date Extracted: 07/31/20

Date Analyzed: 07/31/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
MW-22-16 007493-04	<50	<250	94
MW-22-25 007493-05	<50	<250	91
MW-23-8 007493-06	<50	<250	92
MW-23-12.5 007493-07	<50	<250	90
MW-23-18 007493-09	<50	<250	84
MW-21-5 007493-11	<50	<250	86
MW-21-10 007493-12	<50	<250	88
MW-21-17.5 007493-13	<50	<250	91
B-11-5.5 007493-15	<50	<250	91
B-11-10.5 007493-16	<50	<250	55

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

Date Extracted: 07/31/20

Date Analyzed: 07/31/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
B-11-15 007493-17	<50	<250	94
MW-26-12.5 007493-22	<50	<250	84
MW-27-10.5 007493-25	<50	<250	90
MW-24-10.5 007493-29	<50	<250	94
DUP-3 007493-32	<50	<250	94
Method Blank 00-1713 MB	<50	<250	89

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22-16	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-04
Date Analyzed:	07/30/20	Data File:	073015.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	0.069
Toluene	<0.05
Ethylbenzene	0.12
m,p-Xylene	0.50
o-Xylene	0.13
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22-25	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-05
Date Analyzed:	07/30/20	Data File:	073016.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-8	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-06
Date Analyzed:	07/30/20	Data File:	073017.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	145
Toluene-d8	96	55	145
4-Bromofluorobenzene	94	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-12.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-07
Date Analyzed:	07/30/20	Data File:	073018.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	97	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-18	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-09
Date Analyzed:	07/30/20	Data File:	073019.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	97	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	0.44
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-21-5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-11
Date Analyzed:	07/30/20	Data File:	073020.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-21-10	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-12
Date Analyzed:	07/30/20	Data File:	073021.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	0.097

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-21-17.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-13
Date Analyzed:	07/30/20	Data File:	073022.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B-11-5.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-15
Date Analyzed:	07/30/20	Data File:	073023.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	145
Toluene-d8	97	55	145
4-Bromofluorobenzene	94	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	0.082

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B-11-10.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-16
Date Analyzed:	07/30/20	Data File:	073024.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B-11-15	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-17
Date Analyzed:	07/30/20	Data File:	073025.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-26-12.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-22
Date Analyzed:	07/30/20	Data File:	073026.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-27-10.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-25
Date Analyzed:	07/30/20	Data File:	073027.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	62	145
Toluene-d8	97	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-24-10.5	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-29
Date Analyzed:	07/30/20	Data File:	073028.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	102	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DUP-3	Client:	Aspect Consulting, LLC
Date Received:	07/29/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	007493-32
Date Analyzed:	07/30/20	Data File:	073029.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	98	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	07/30/20	Lab ID:	00-1688 mb
Date Analyzed:	07/30/20	Data File:	073010.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	94	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 007470-02 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	90	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 007493-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	114	110	64-133	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	104	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/04/20

Date Received: 07/29/20

Project: Texaco Strickland PO 180357, F&BI 007493

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 007470-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	2.5	<0.03	80	74	29-129	8
Toluene	mg/kg (ppm)	2.5	<0.05	79	74	35-130	7
Ethylbenzene	mg/kg (ppm)	2.5	0.35	66	60	32-137	10
m,p-Xylene	mg/kg (ppm)	5	0.71	65	61	34-136	6
o-Xylene	mg/kg (ppm)	2.5	0.054	83	78	33-134	6
Naphthalene	mg/kg (ppm)	2.5	0.59	59 b	54 b	14-157	9 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	2.5	99	68-114
Toluene	mg/kg (ppm)	2.5	97	66-126
Ethylbenzene	mg/kg (ppm)	2.5	100	64-123
m,p-Xylene	mg/kg (ppm)	5	102	78-122
o-Xylene	mg/kg (ppm)	2.5	104	77-124
Naphthalene	mg/kg (ppm)	2.5	106	63-140

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

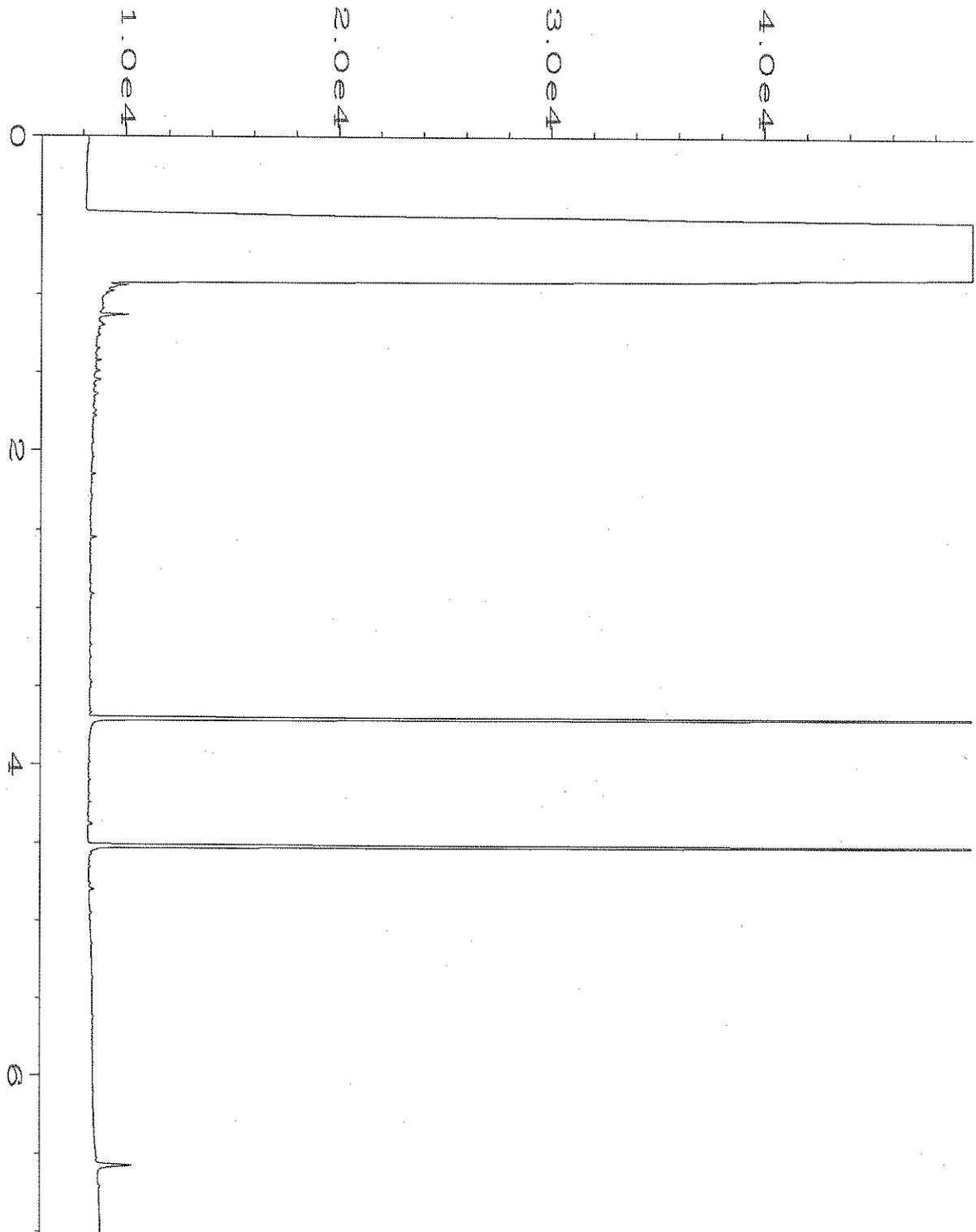
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

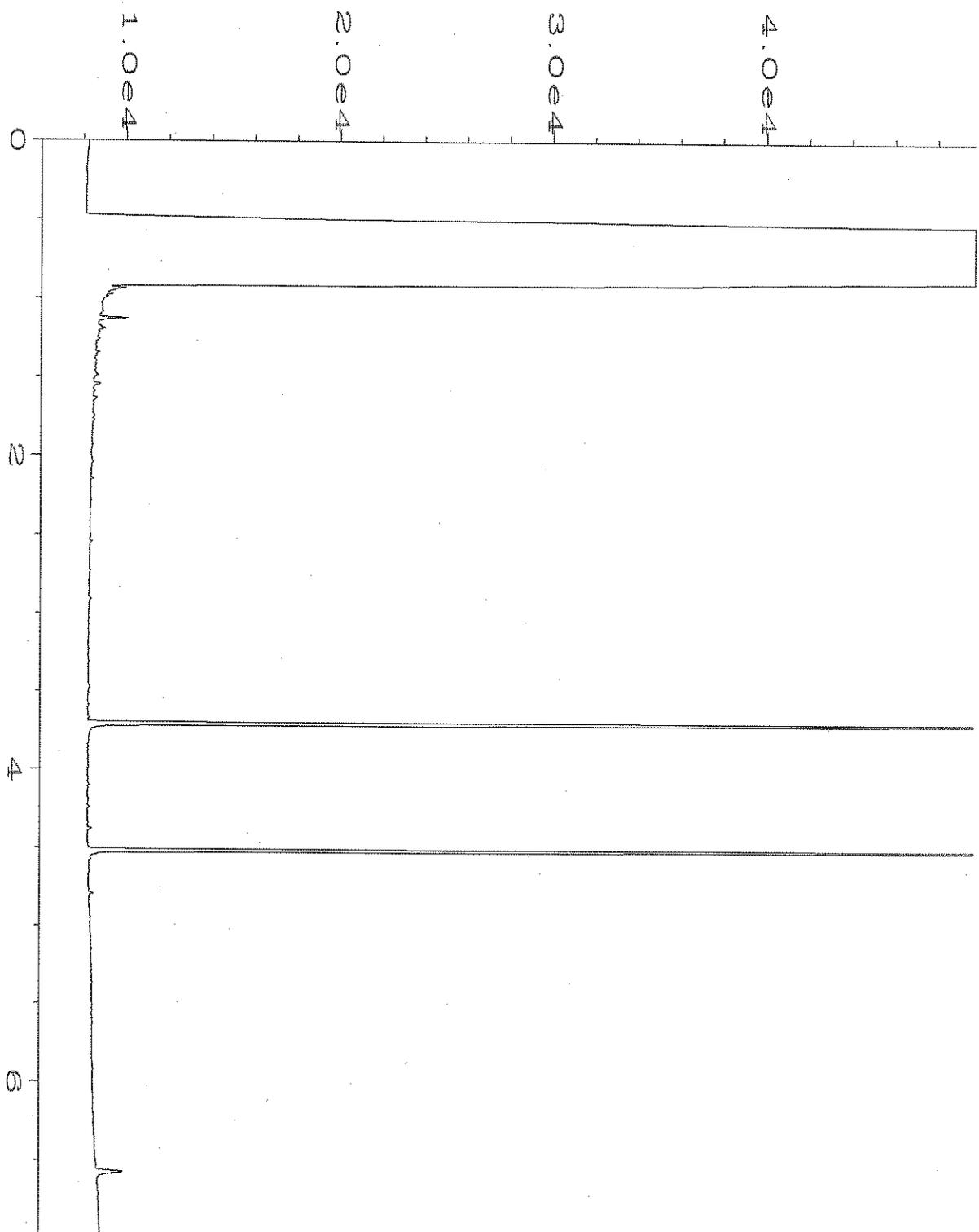
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

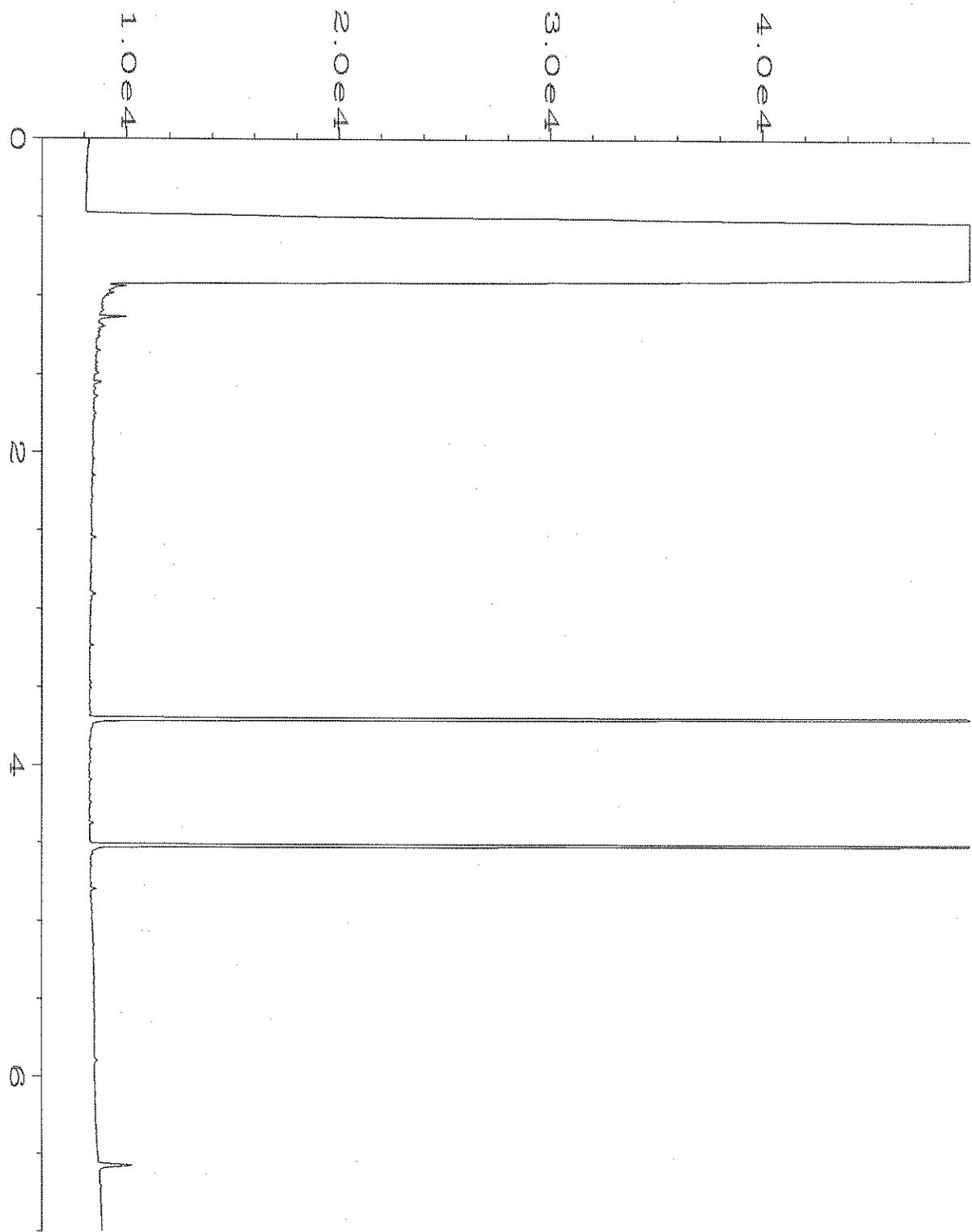
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



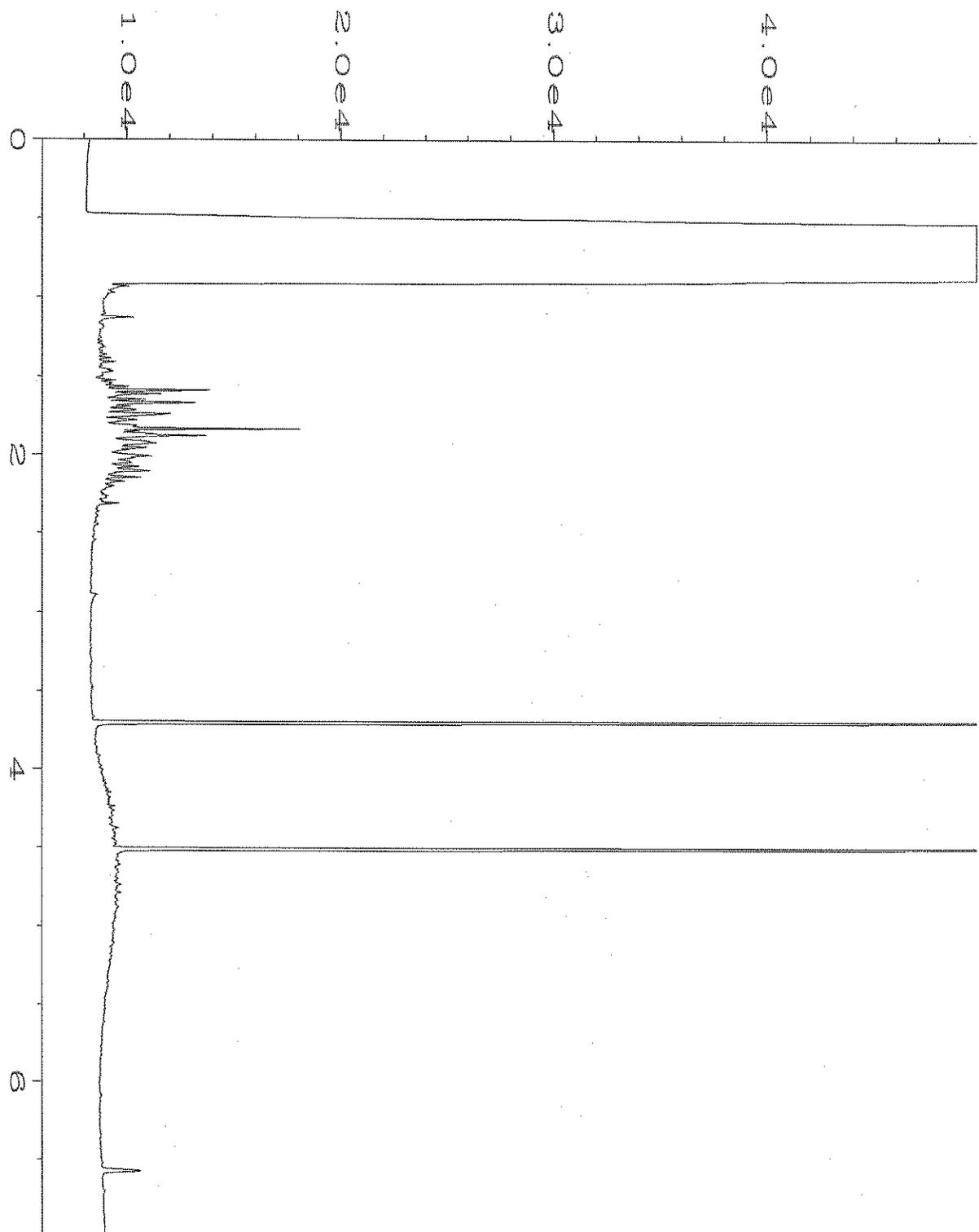
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Sample Name	: 007493-04	Sequence Line	: 8
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Acquired on	: 31 Jul 20 03:18 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:02 AM		



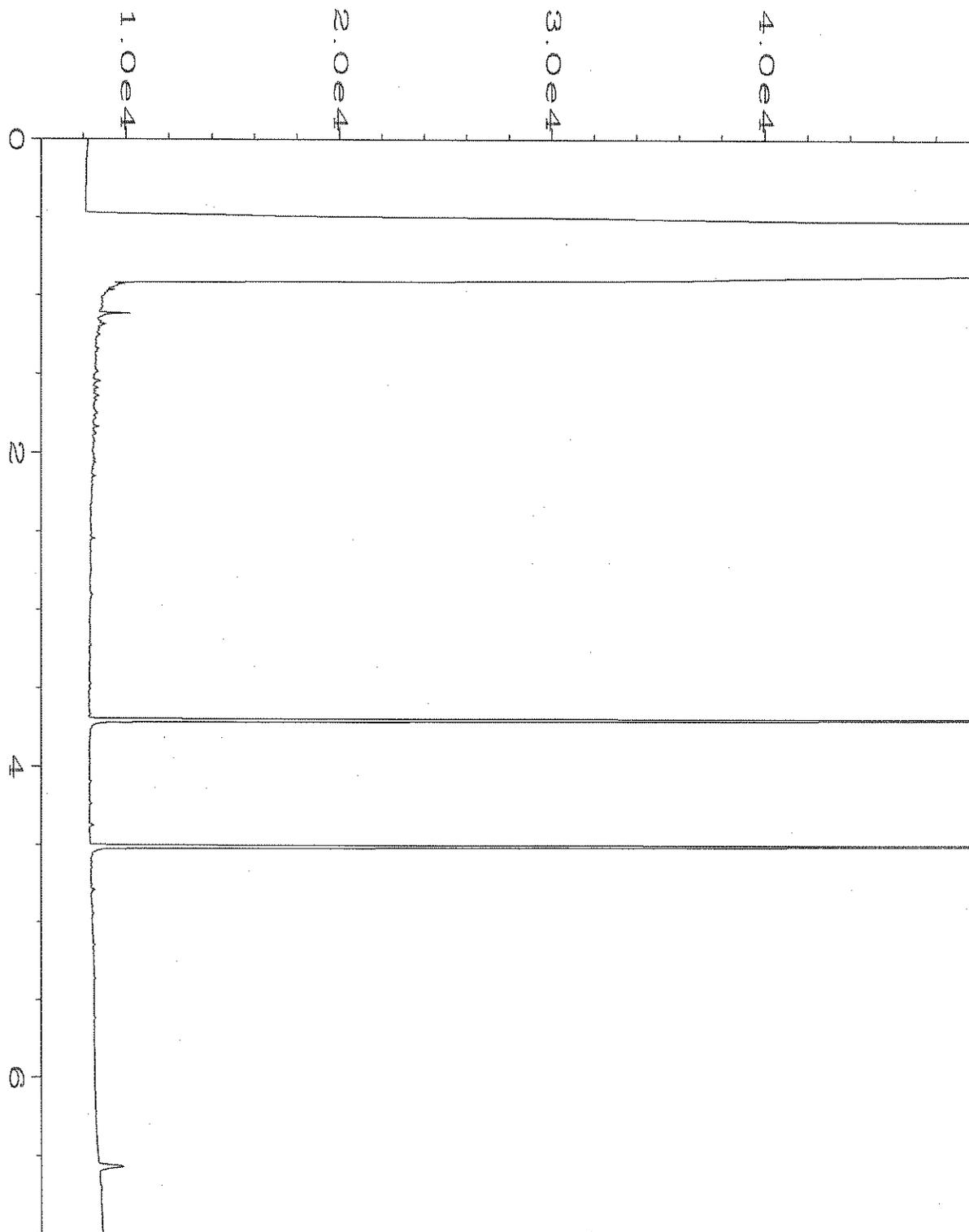
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-05	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:29 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:02 AM		



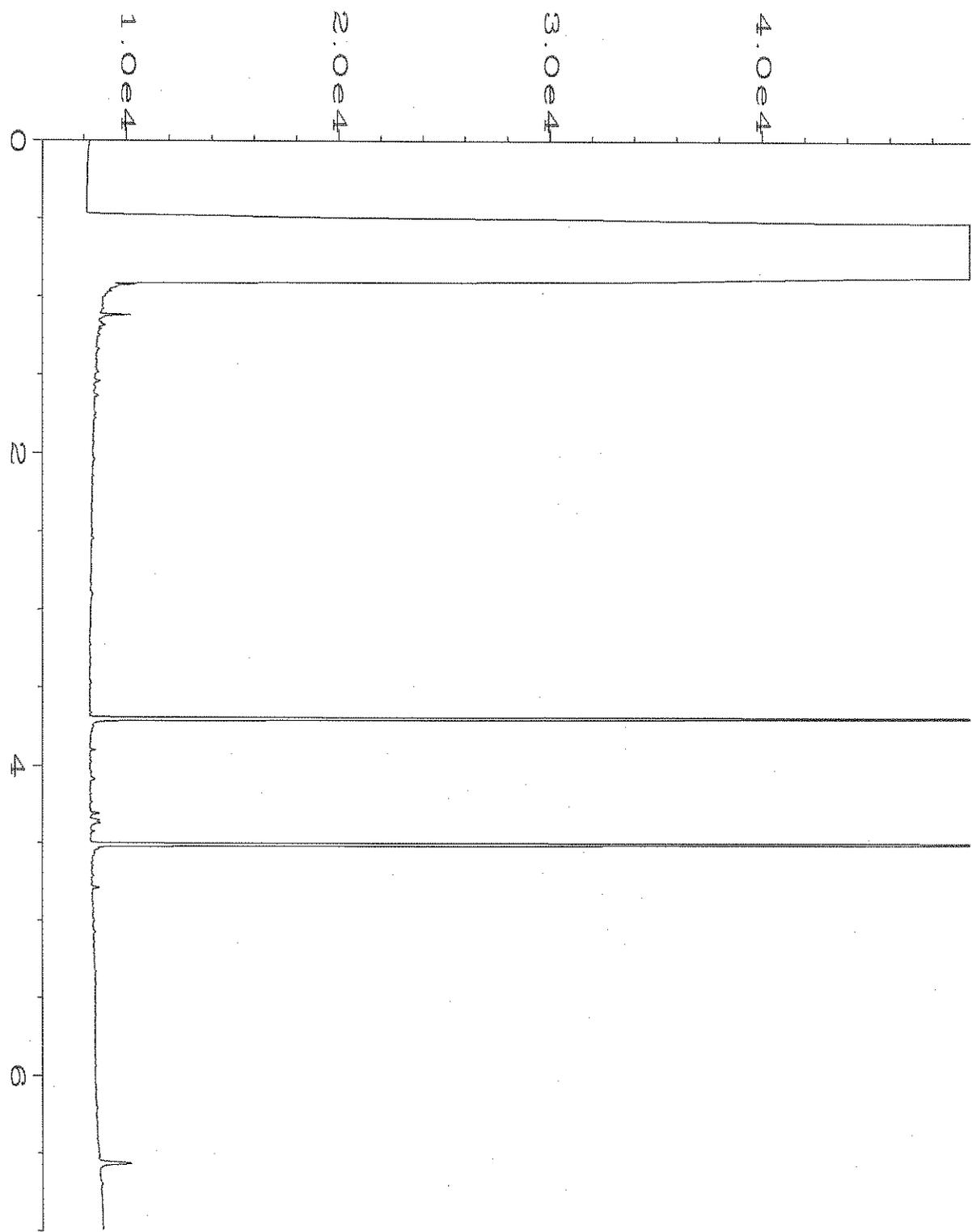
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-06	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:40 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



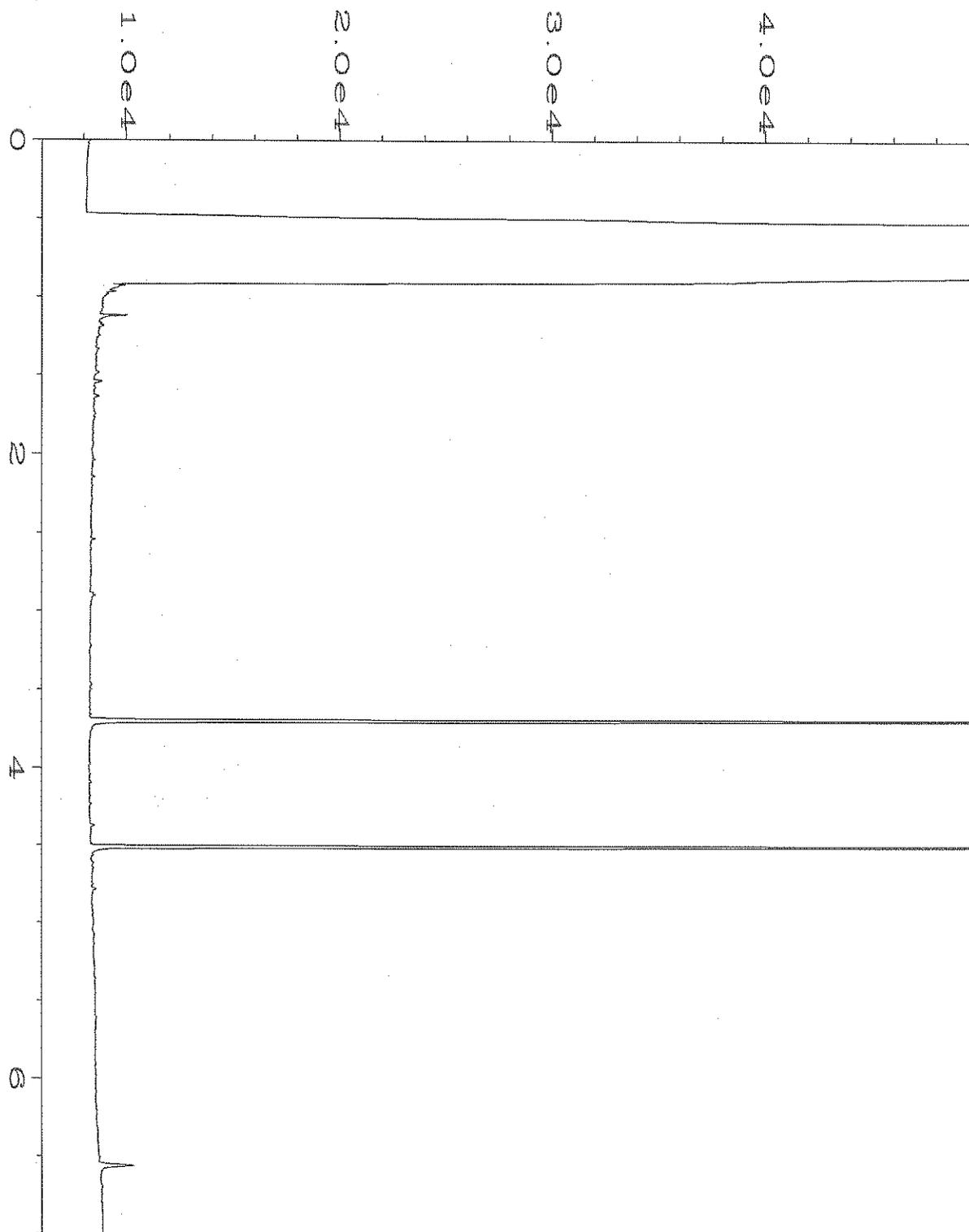
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-07	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:51 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



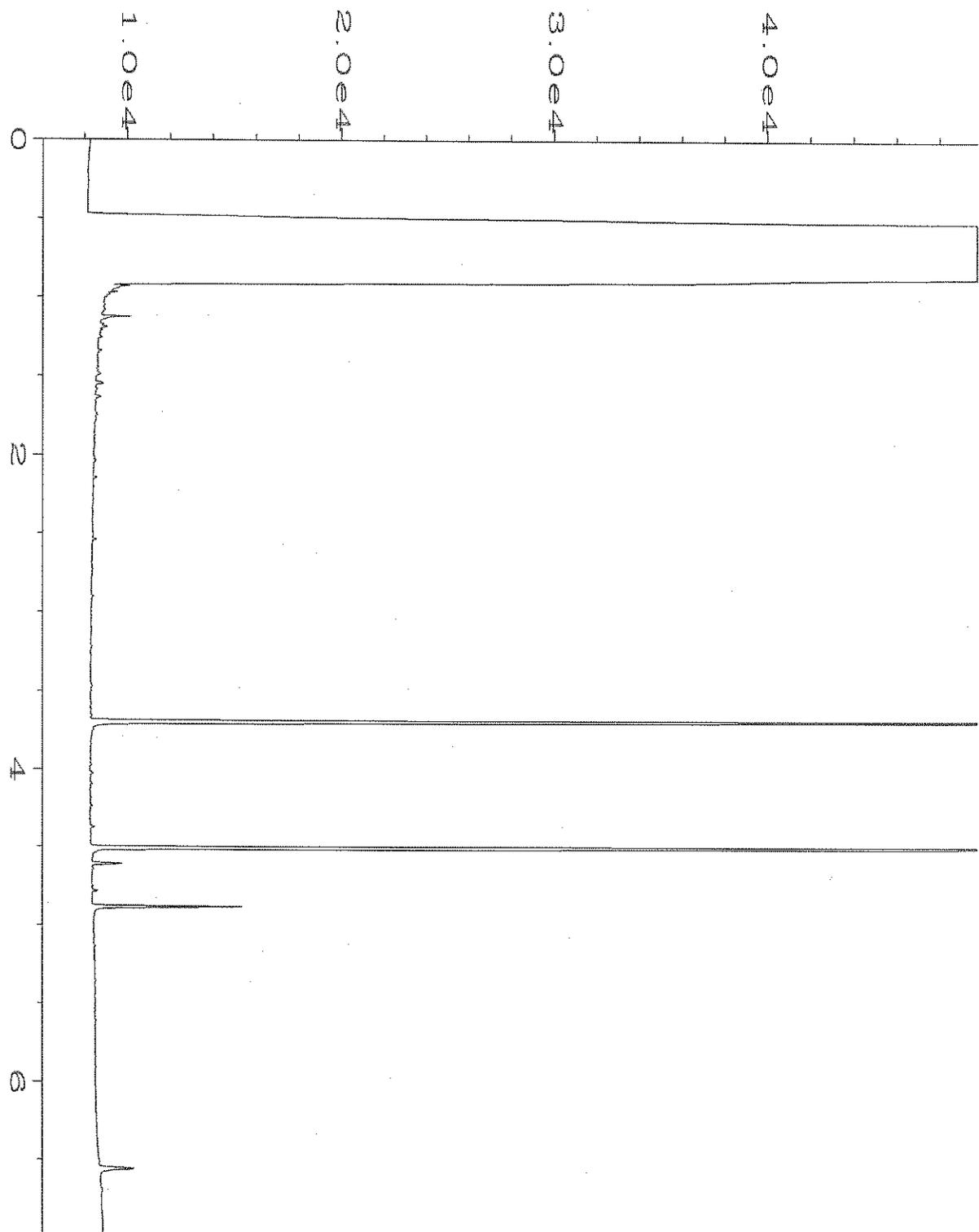
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-09	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 04:02 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



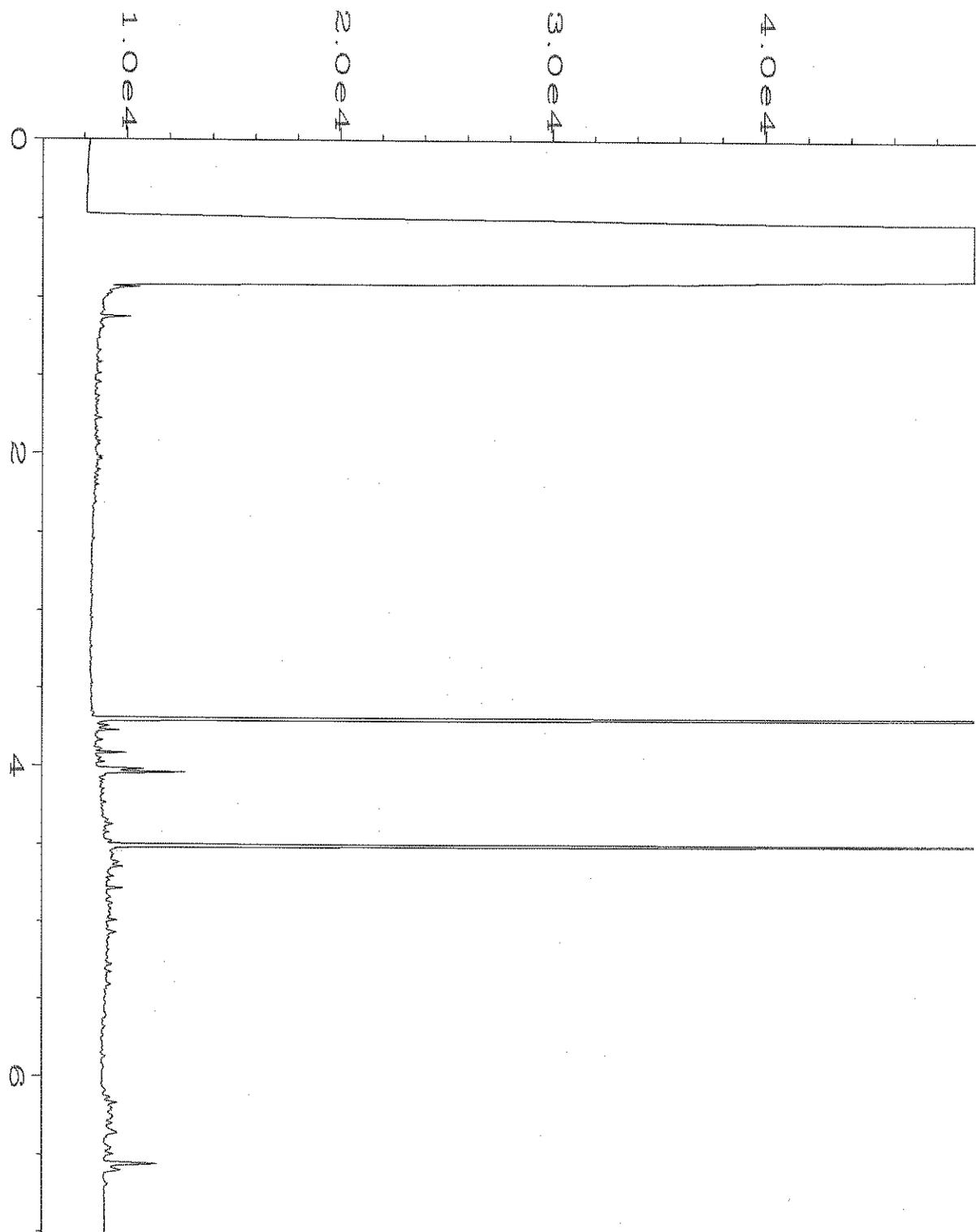
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-11	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 04:13 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



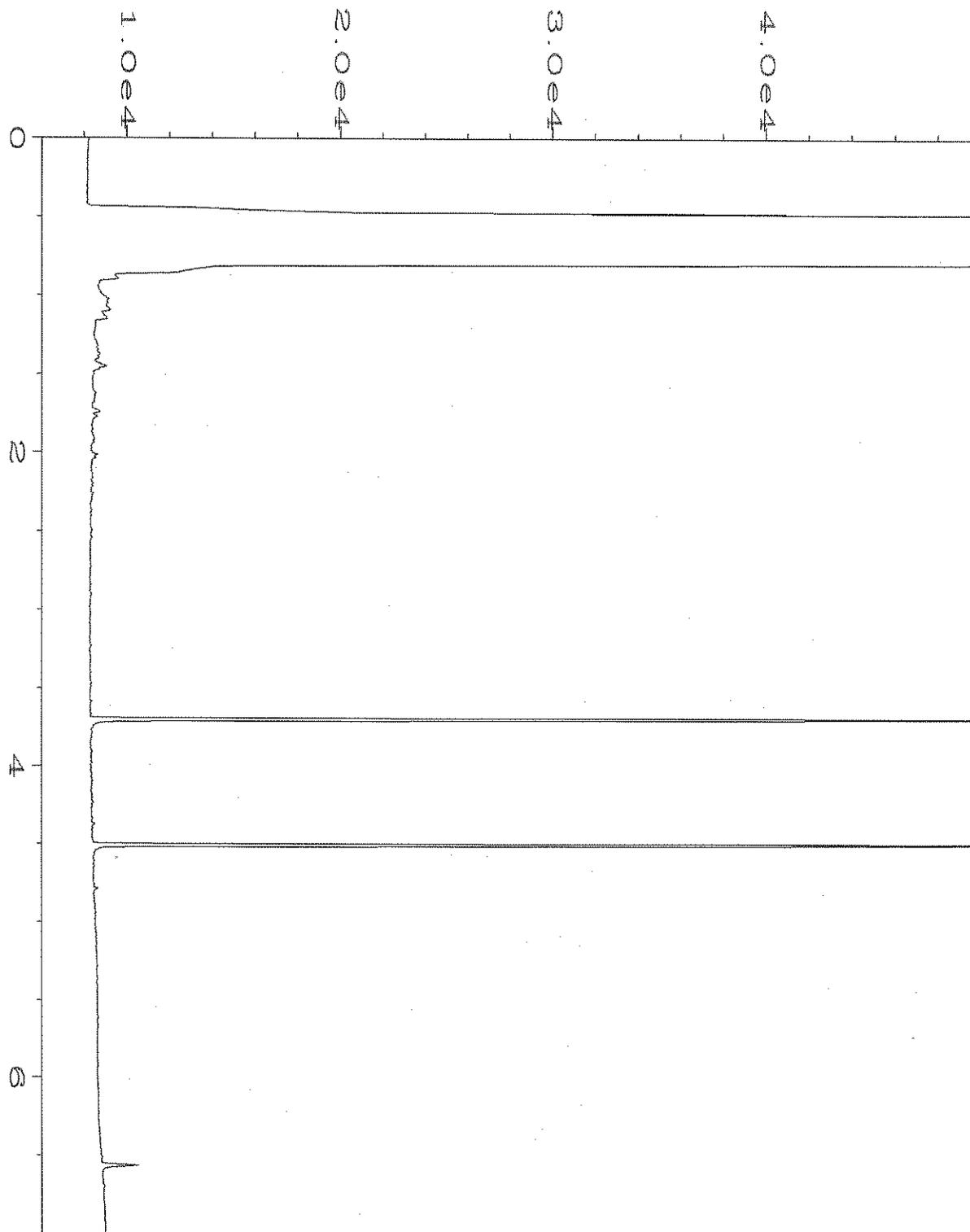
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-12	Sequence Line	: 10
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Acquired on	: 31 Jul 20 04:47 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



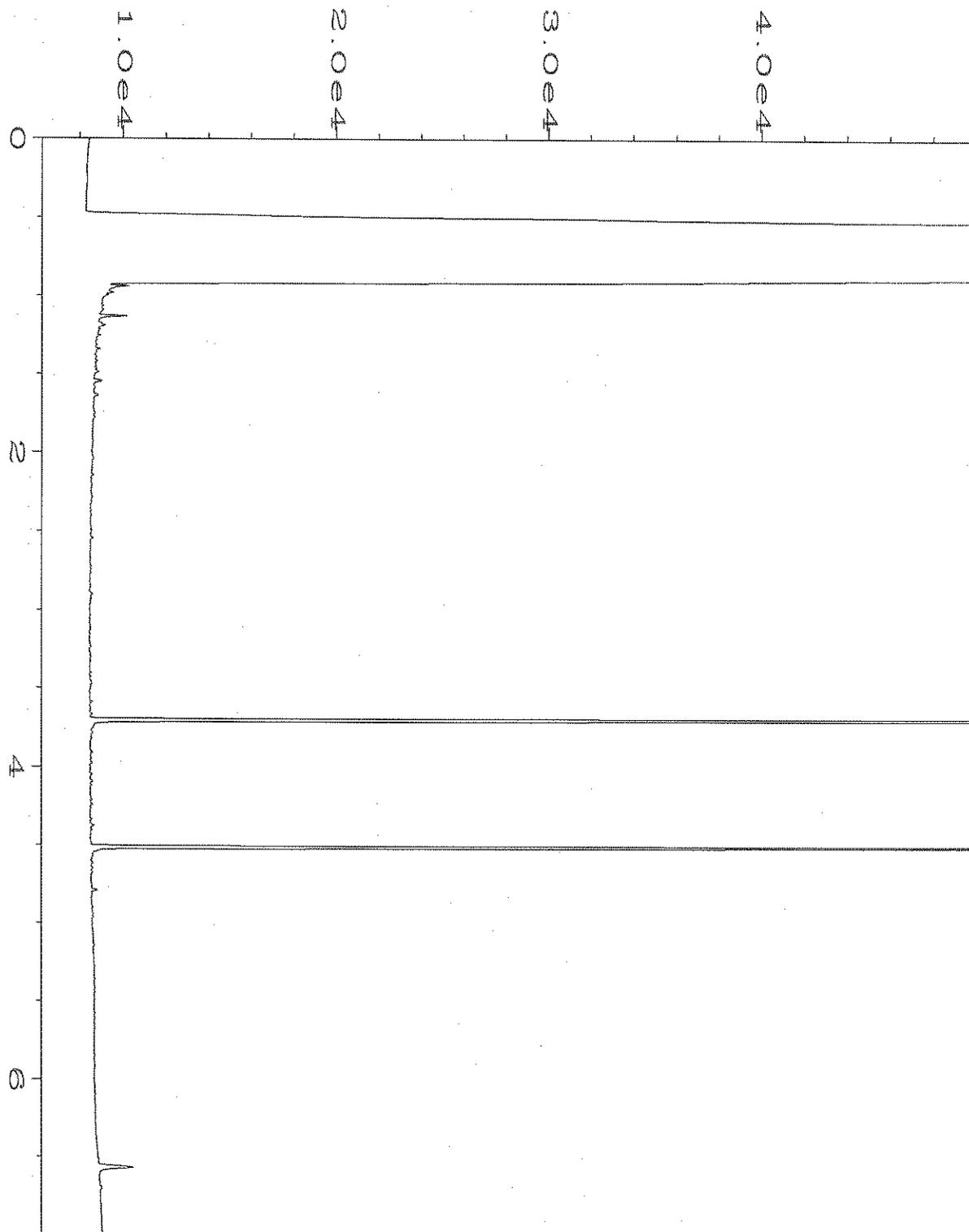
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Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-13	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 04:58 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



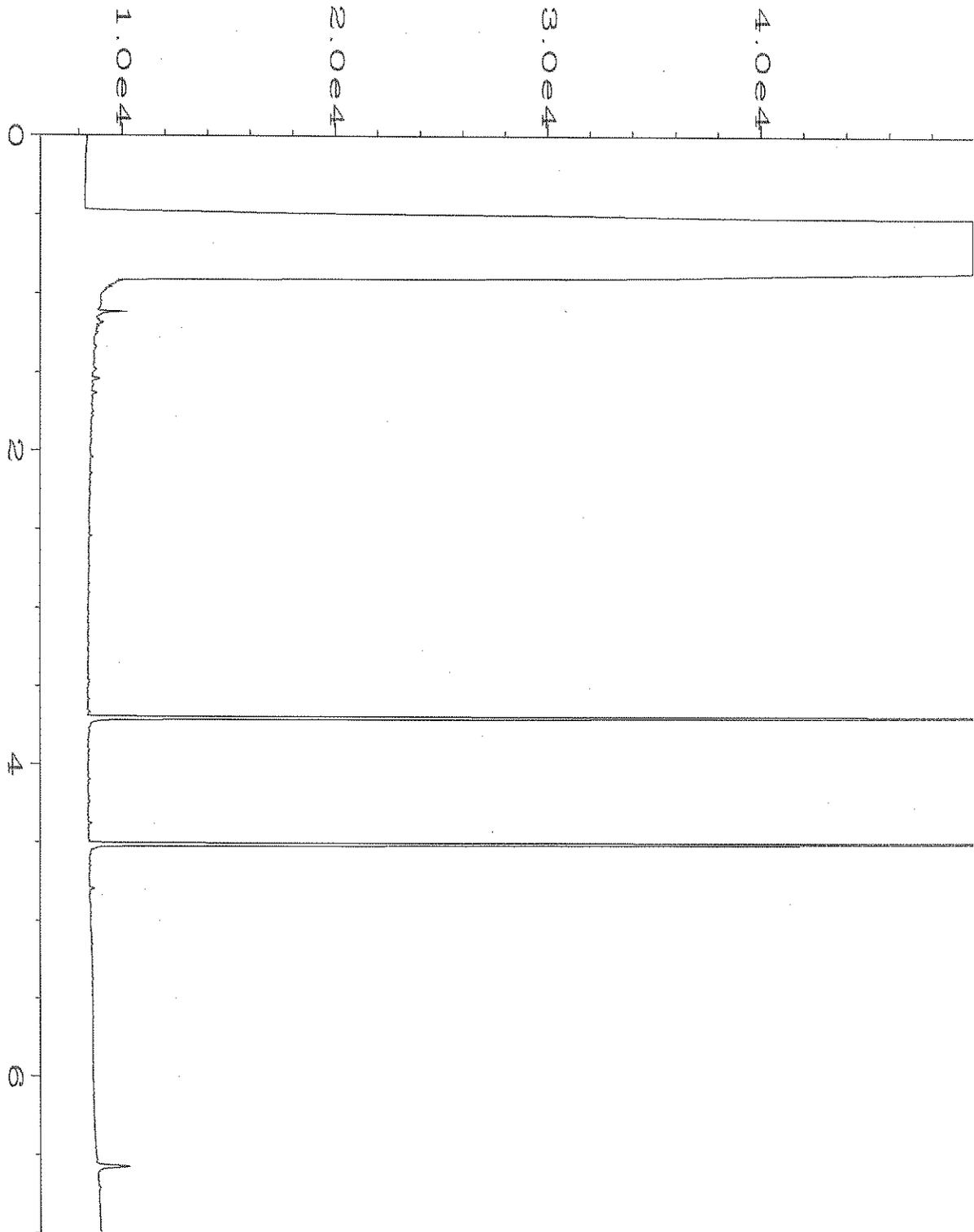
Data File Name	: C:\HPCHEM\6\DATA\07-31-20\043F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 43
Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-15	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 05:09 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:03 AM		



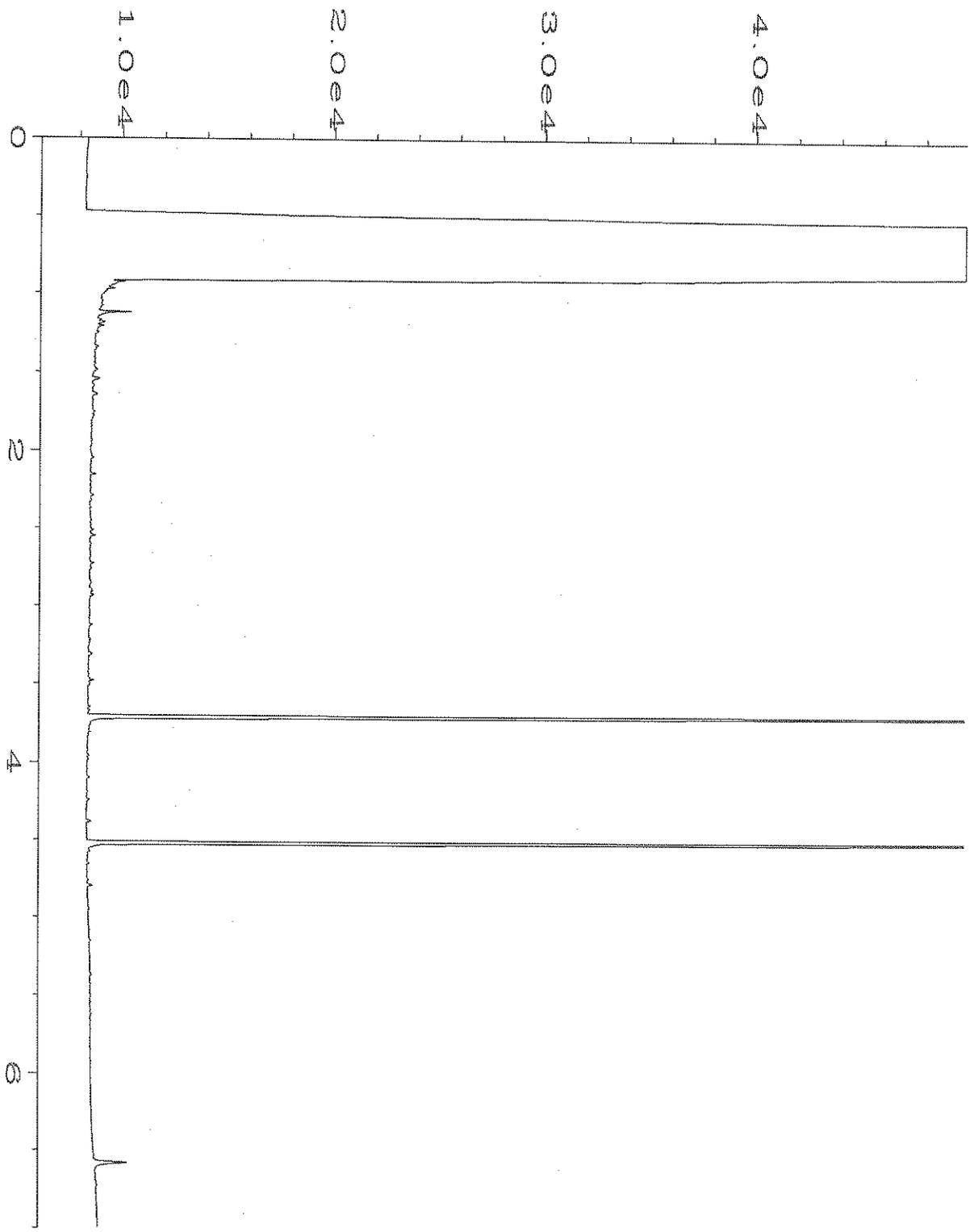
Data File Name	: C:\HPCHEM\6\DATA\07-31-20\044F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 44
Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-16	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 05:20 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:04 AM		



Data File Name	: C:\HPCHEM\6\DATA\07-31-20\045F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 45
Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-17	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 05:31 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:04 AM		



Data File Name	: C:\HPCHEM\6\DATA\07-31-20\046F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 46
Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-22	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 05:42 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:04 AM		



Data File Name	: C:\HPCHEM\6\DATA\07-31-20\047F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 47
Instrument	: GC6	Injection Number	: 1
Sample Name	: 007493-25	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 05:54 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 09:04 AM		

007493 SAMPLE CHAIN OF CUSTODY MW 07-29-20 VSS/ROS Page # 1 of 4

Report To: Andrew Yonkoshki / Adam Carter  
 Company: Aspect Consulting  
 Address: 710 2nd Ave, Ste. 550  
 City, State, ZIP: Seattle, WA, 98104  
 Phone: 206-413-5411 Email: ayonkoshki@aspect.com

SAMPLERS (signature) *David Unruh*  
 PROJECT NAME: Texas Strickland  
 PO #: 180357  
 REMARKS: INVOICE TO AP  
 Project specific RIS? - Yes /  No

TURNAROUND TIME:  Standard turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL:  
 Archive samples  
 Other  
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXN 8260C	Hold pending				
MW-22-25	01A-E	7/28/20	0848	Soil	5													
MW-22-10	02		0853															
MW-22-125	03		0854															
MW-22-16	04		0906			X	X											
MW-22-25	25		0928			X	X											
MW-23-8	06		1102			X	X											
MW-23-125	07		1112			X	X											
MW-23-15	08		1120															
MW-23-18	09		127			X	X											
MW-23-25	10		139															

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>David Unruh</i>	David Unruh	Aspect Consulting	7/29/20	12:07
<i>Scott Cassidy</i>	Scott Cassidy	FRB1	7/29/20	14:07
Received by:		Samples received at		

007493 SAMPLE CHAIN OF CUSTODY <sup>ME</sup> 07-29-20 US 57025 24

Report To Andrew Yorkoski / Adam Corbett

Company Aspect Consulting

Address 710 2nd Ave Ste. 530

City, State, ZIP Seattle, WA 98104

Phone 206413-5411 Email ayorkoski@aspectconsulting.com

SAMPLERS (signature) David Clark

PROJECT NAME Texas Shiloh PO # 180357

REMARKS APD INVOICE TO APD

Page # 2 of 2

TURNAROUND TIME

Standard turnaround

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Archive samples

Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXU BACOC	Hold	Preserve	
MW-21-5	11A-E	7/28/20	1318	SO11	5	X	X						X			
MW-21-10	12		1328			X	X						X			
MW-21-17.5	13		1340			X	X						X			
MW-21-25	14		1353											X		
B-11-55	15		1459			X	X						X			
B-11-10.5	16		1571			X	X						X			
B-11-15	17		1526			X	X						X			
B-11-18	18		1533											X		
B-11-22.5	19		1544											X		
MW-26-5	20	7/29/20	0759	SO11	5									X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>David Clark</u>	<u>David Clark</u>	<u>Aspect Consulting</u>	<u>7/29/20</u>	<u>12:07</u>
<u>David Clark</u>	<u>David Clark</u>	<u>Aspect Consulting</u>	<u>7/29/20</u>	<u>17:04</u>
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				

Received at: 3 °C

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282





FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 6, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on July 30, 2020 from the Texaco Strickland PO 180357, F&BI 007523 project. There are 22 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0806R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 30, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 007523 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
007523 -01	MW-20-5'
007523 -02	MW-20-8'
007523 -03	MW-20-10.5'
007523 -04	MW-20-13'
007523 -05	MW-20-15.5'
007523 -06	MW-20-17.5'
007523 -07	MW-20-20'
007523 -08	MW-20-22.5'
007523 -09	MW-20-25'
007523 -10	MW-25-2.5'
007523 -11	MW-25-5'
007523 -12	MW-25-8'
007523 -13	MW-25-10.5'
007523 -14	MW-25-13'
007523 -15	MW-25-15'
007523 -16	MW-25-17.5'
007523 -17	MW-25-20'
007523 -18	MW-25-22.5'
007523 -19	MW-25-25'
007523 -20	B-10-2.5'
007523 -21	B-10-6'
007523 -22	B-10-7.5'
007523 -23	B-10-12.5'
007523 -24	B-10-16'
007523 -25	B-10-17.5'
007523 -26	B-10-20'
007523 -27	B-10-22.5'
007523 -28	B-10-25'
007523 -29	MW-21A-2.5'
007523 -30	MW-22A-2.5'
007523 -31	MW-22B-5'
007523 -32	DUP-4
007523 -33	DUP-5
007523 -34	Trip Blank

The 8260D matrix sample and matrix sample duplicate failed the relative percent difference for several compounds. The laboratory control sample met the acceptance criteria, therefore the data were likely due to sample matrix effect.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

Date Extracted: 07/31/20

Date Analyzed: 08/03/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-20-5' 007523-01	<5	99
MW-20-8' 007523-02	<5	101
MW-20-13' 007523-04	<5	99
MW-25-8' 007523-12	<5	93
B-10-12.5 007523-23	<5	100
MW-21A-2.5 007523-29	<5	99
MW-22A-2.5 007523-30	<5	100
MW-22B-5' 007523-31	<5	98
DUP-4 007523-32	9.2	105
Method Blank 00-1392 MB	<5	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

Date Extracted: 08/03/20

Date Analyzed: 08/04/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
Trip Blank 007523-34	<100	93
Method Blank 00-1393 MB	<100	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

Date Extracted: 07/31/20

Date Analyzed: 07/31/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
MW-20-5' 007523-01	<50	<250	97
MW-20-8' 007523-02	<50	<250	93
MW-20-13' 007523-04	<50	<250	91
MW-25-8' 007523-12	<50	<250	93
B-10-12.5 007523-23	<50	<250	92
MW-21A-2.5 007523-29	90 x	360	90
MW-22A-2.5 007523-30	<50	<250	91
MW-22B-5' 007523-31	<50	680	88
DUP-4 007523-32	<50	<250	90
Method Blank 00-1754 MB	<50	<250	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-20-5'	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-01
Date Analyzed:	07/31/20	Data File:	073121.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-20-8'	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-02
Date Analyzed:	07/31/20	Data File:	073122.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	0.065

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-20-13'	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-04
Date Analyzed:	07/31/20	Data File:	073123.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-25-8'	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-12
Date Analyzed:	07/31/20	Data File:	073124.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B-10-12.5	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-23
Date Analyzed:	07/31/20	Data File:	073125.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-21A-2.5	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-29
Date Analyzed:	07/31/20	Data File:	073126.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22A-2.5	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-30
Date Analyzed:	07/31/20	Data File:	073127.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22B-5'	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-31
Date Analyzed:	07/31/20	Data File:	073128.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	102	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DUP-4	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	007523-32
Date Analyzed:	07/31/20	Data File:	073129.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	0.098

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	07/31/20	Lab ID:	00-1718 mb
Date Analyzed:	07/31/20	Data File:	073110.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	97	55	145
4-Bromofluorobenzene	93	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	07/30/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/03/20	Lab ID:	007523-34
Date Analyzed:	08/03/20	Data File:	080315.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/03/20	Lab ID:	00-1684 mb
Date Analyzed:	08/03/20	Data File:	080310.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 007511-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 007463-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	108	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 007523-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	112	106	63-146	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	79-144

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 007477-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	2.5	<0.03	78	62	29-129	23 vo
Toluene	mg/kg (ppm)	2.5	<0.05	77	61	35-130	23 vo
Ethylbenzene	mg/kg (ppm)	2.5	0.075	78	62	32-137	23 vo
m,p-Xylene	mg/kg (ppm)	5	1.2	74 b	58 b	34-136	24 b
o-Xylene	mg/kg (ppm)	2.5	0.061	85	67	33-134	24 vo
Naphthalene	mg/kg (ppm)	2.5	1.8	73 b	50 b	14-157	37 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	2.5	104	68-114
Toluene	mg/kg (ppm)	2.5	101	66-126
Ethylbenzene	mg/kg (ppm)	2.5	104	64-123
m,p-Xylene	mg/kg (ppm)	5	105	78-122
o-Xylene	mg/kg (ppm)	2.5	108	77-124
Naphthalene	mg/kg (ppm)	2.5	109	63-140

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/06/20

Date Received: 07/30/20

Project: Texaco Strickland PO 180357, F&BI 007523

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 007524-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	50	<0.35	101	76-125
Toluene	ug/L (ppb)	50	<1	95	76-122
Ethylbenzene	ug/L (ppb)	50	<1	95	69-135
m,p-Xylene	ug/L (ppb)	100	<2	96	69-135
o-Xylene	ug/L (ppb)	50	<1	98	60-140
Naphthalene	ug/L (ppb)	50	<1	99	44-164

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	50	101	94	69-134	7
Toluene	ug/L (ppb)	50	95	88	72-122	8
Ethylbenzene	ug/L (ppb)	50	98	90	77-124	9
m,p-Xylene	ug/L (ppb)	100	100	91	81-112	9
o-Xylene	ug/L (ppb)	50	101	92	81-121	9
Naphthalene	ug/L (ppb)	50	97	94	64-133	3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

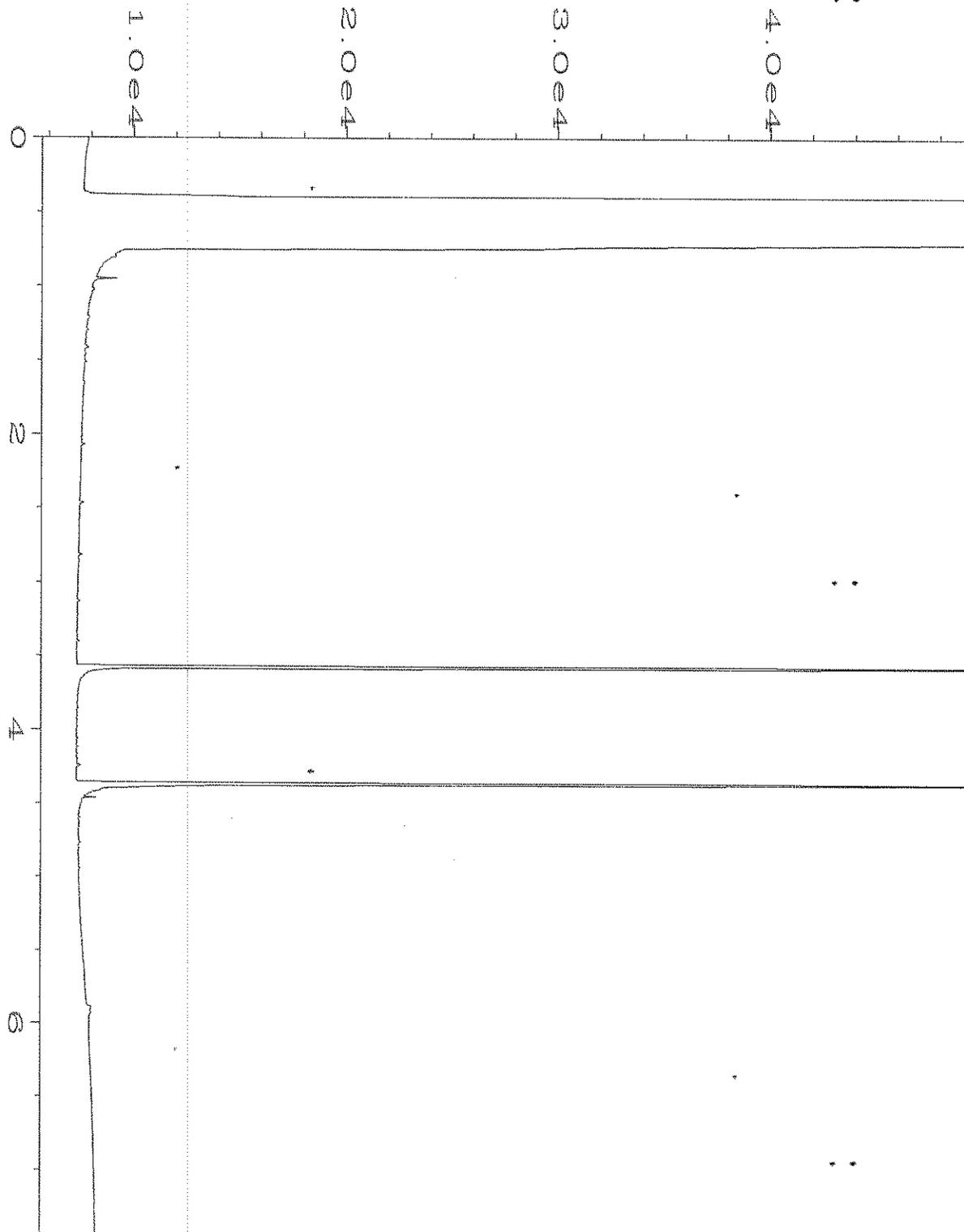
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

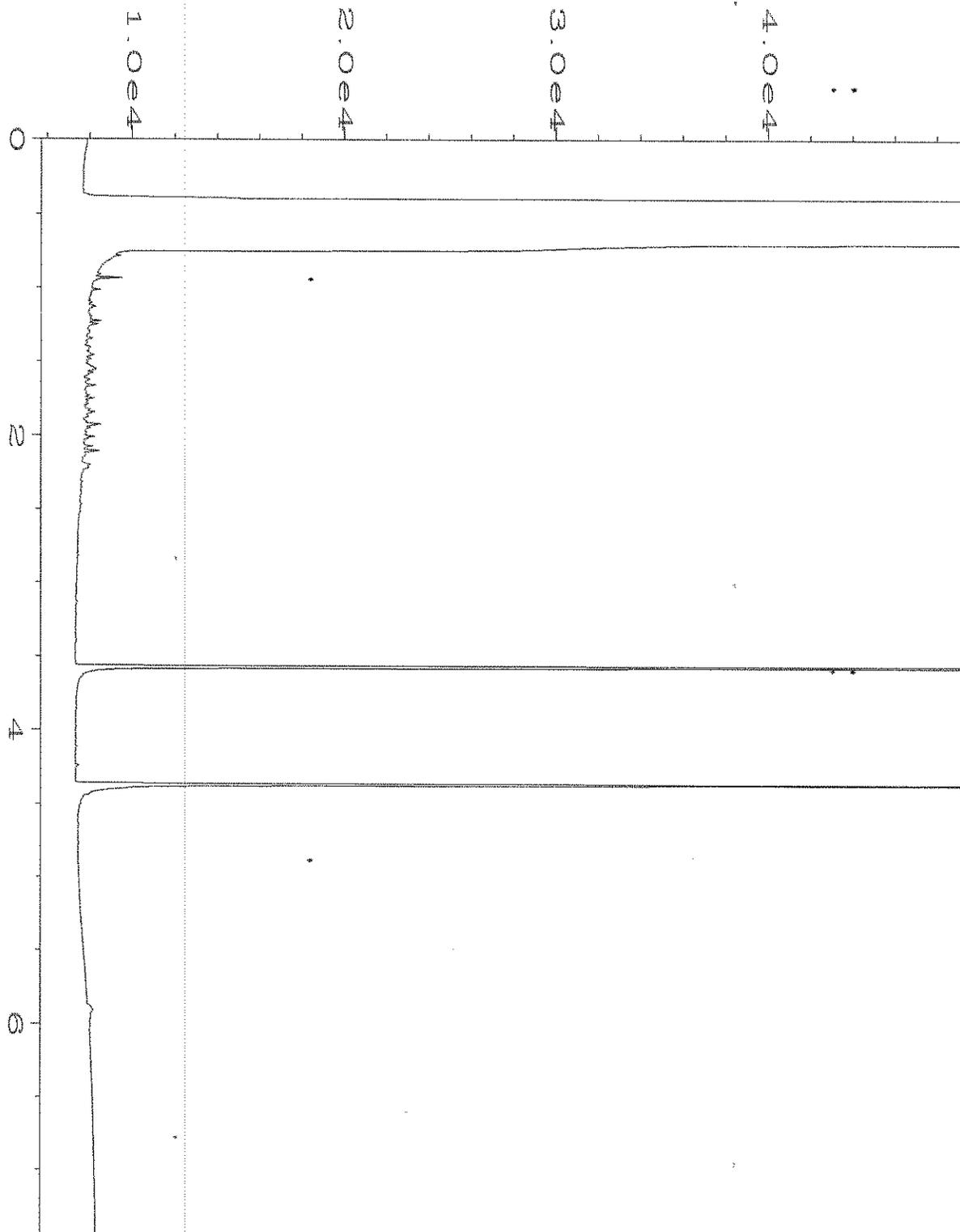
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

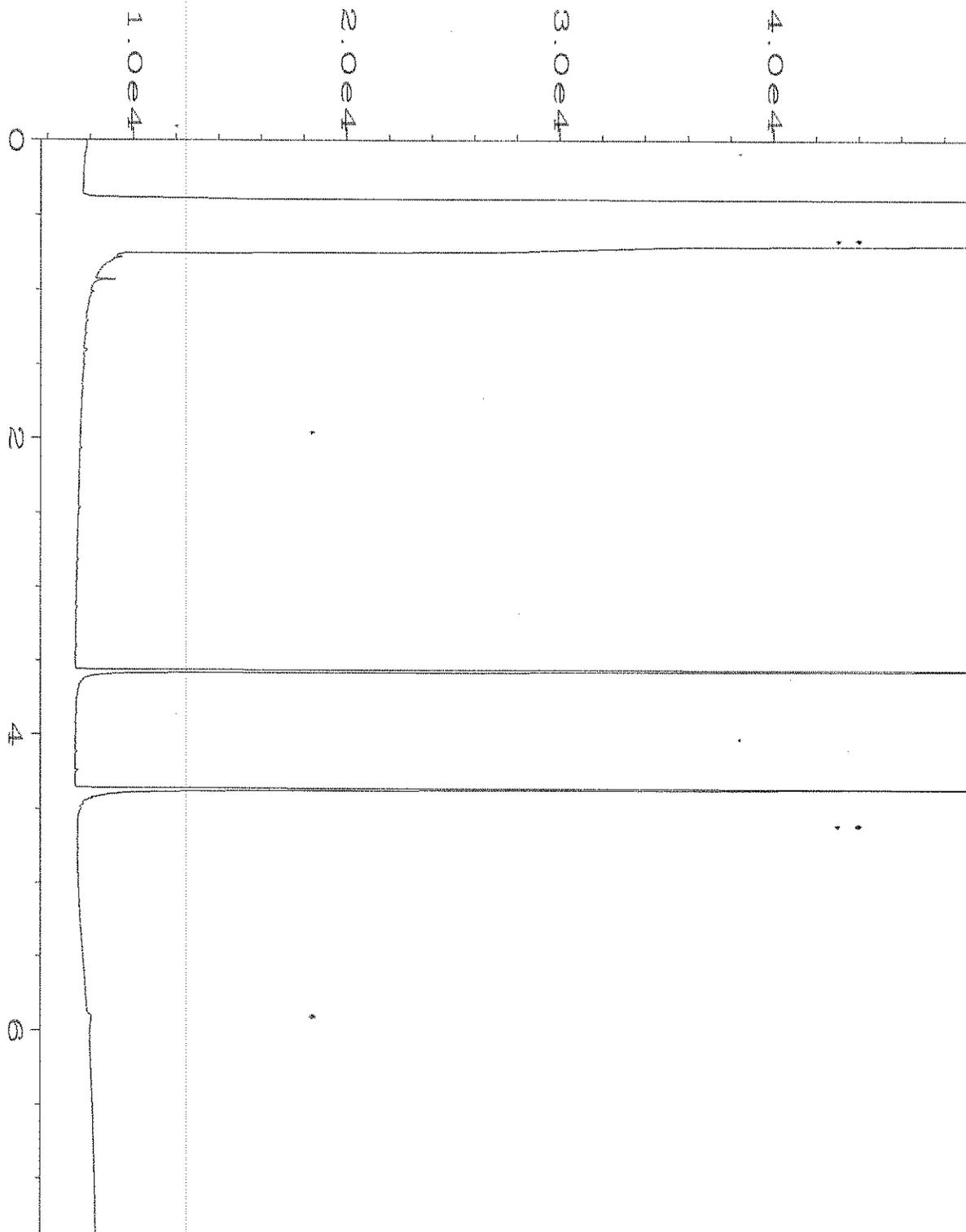
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



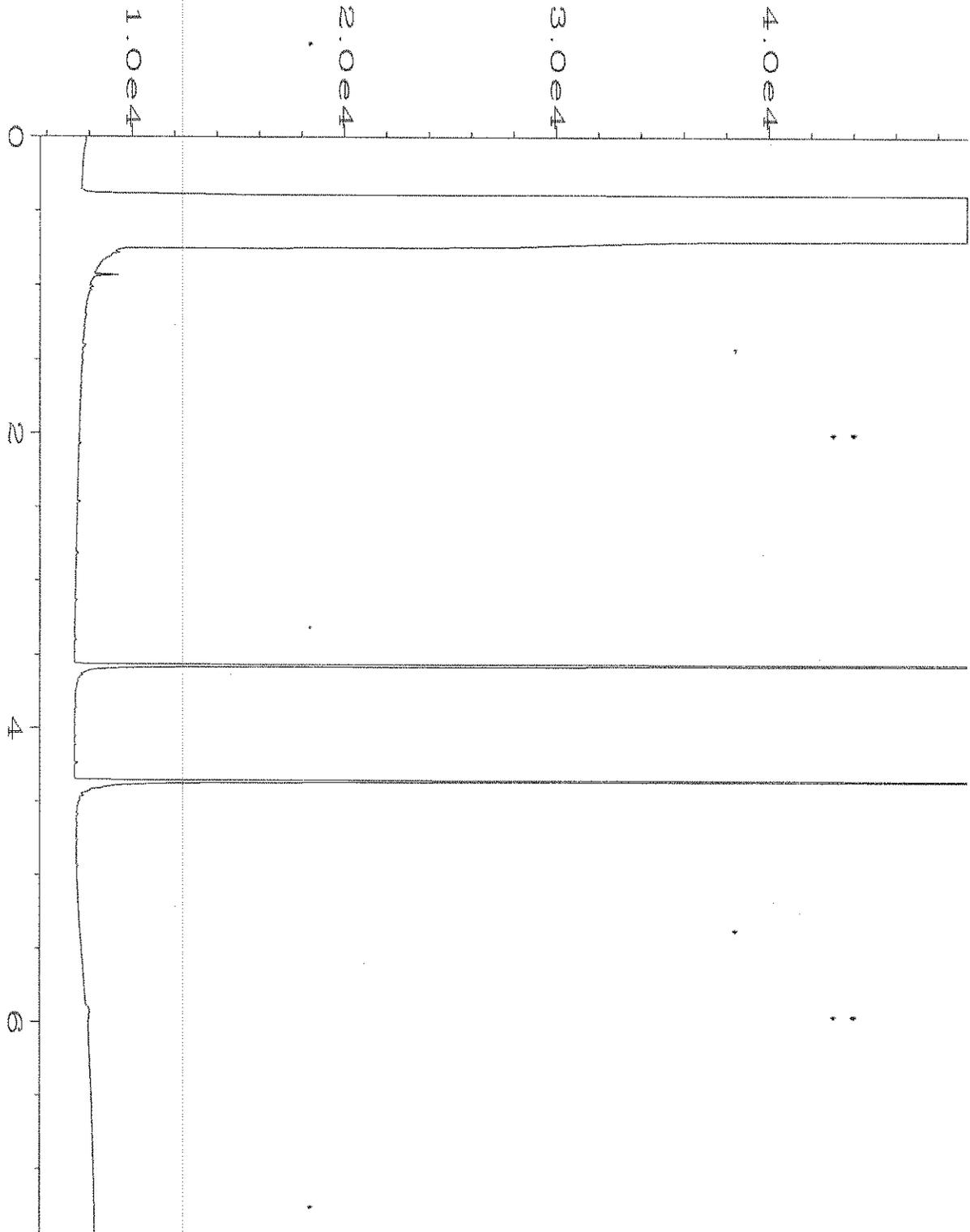
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\023F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 23
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-01	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 02:20 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:57 AM		



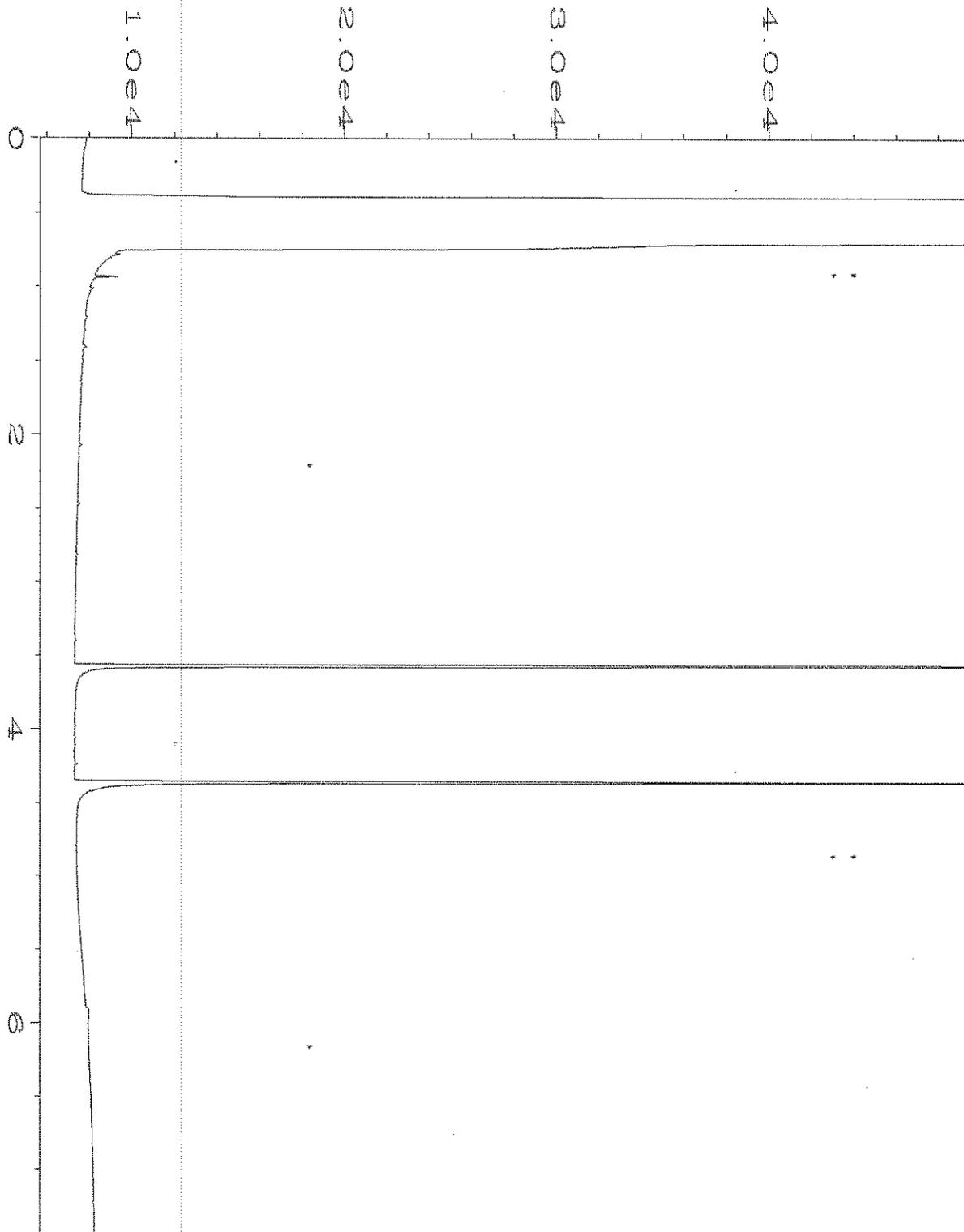
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\024F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 24
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-02	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 02:58 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:57 AM		



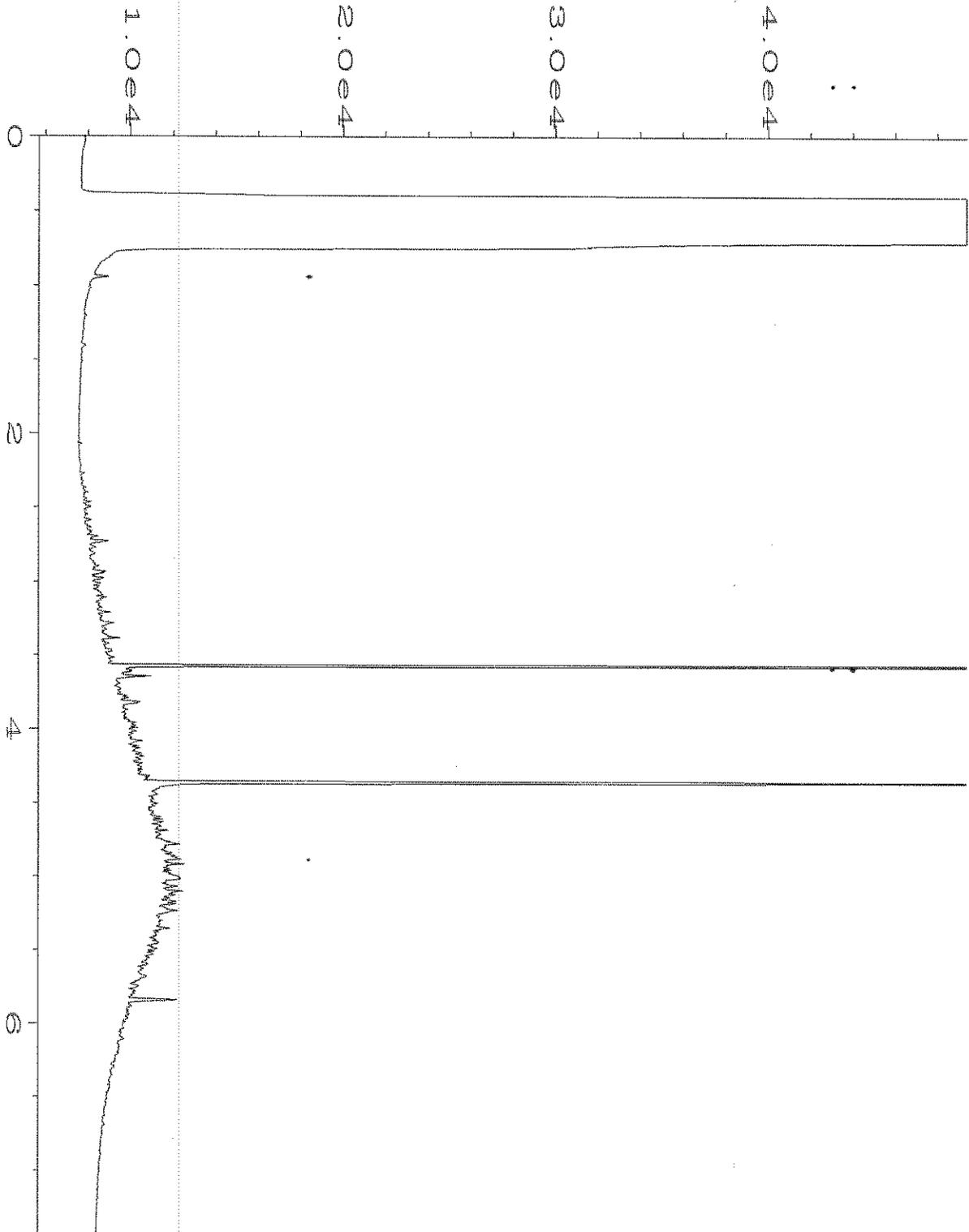
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\025F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 25
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-04	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:07 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:57 AM		



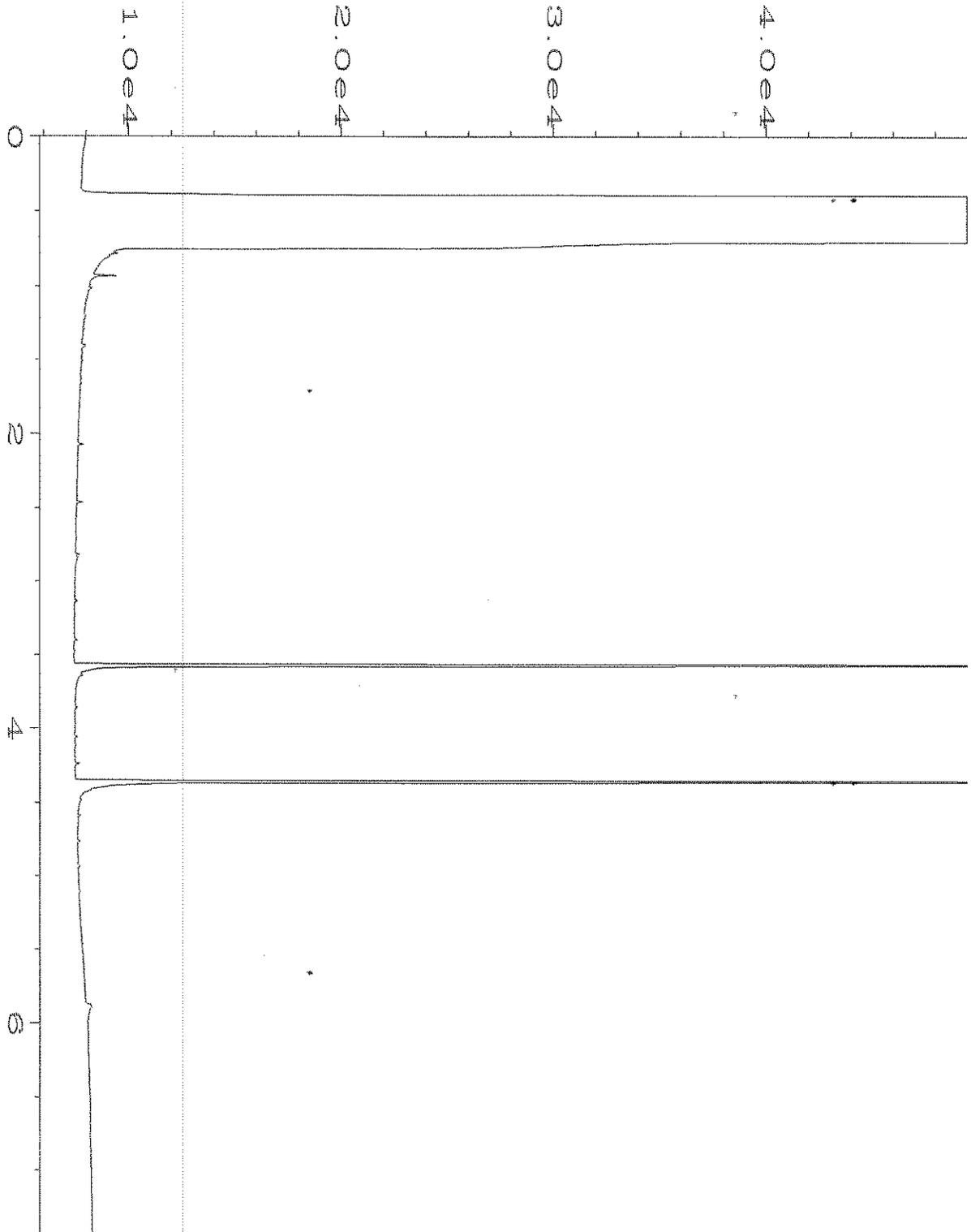
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\026F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 26
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-12	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:19 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:57 AM		



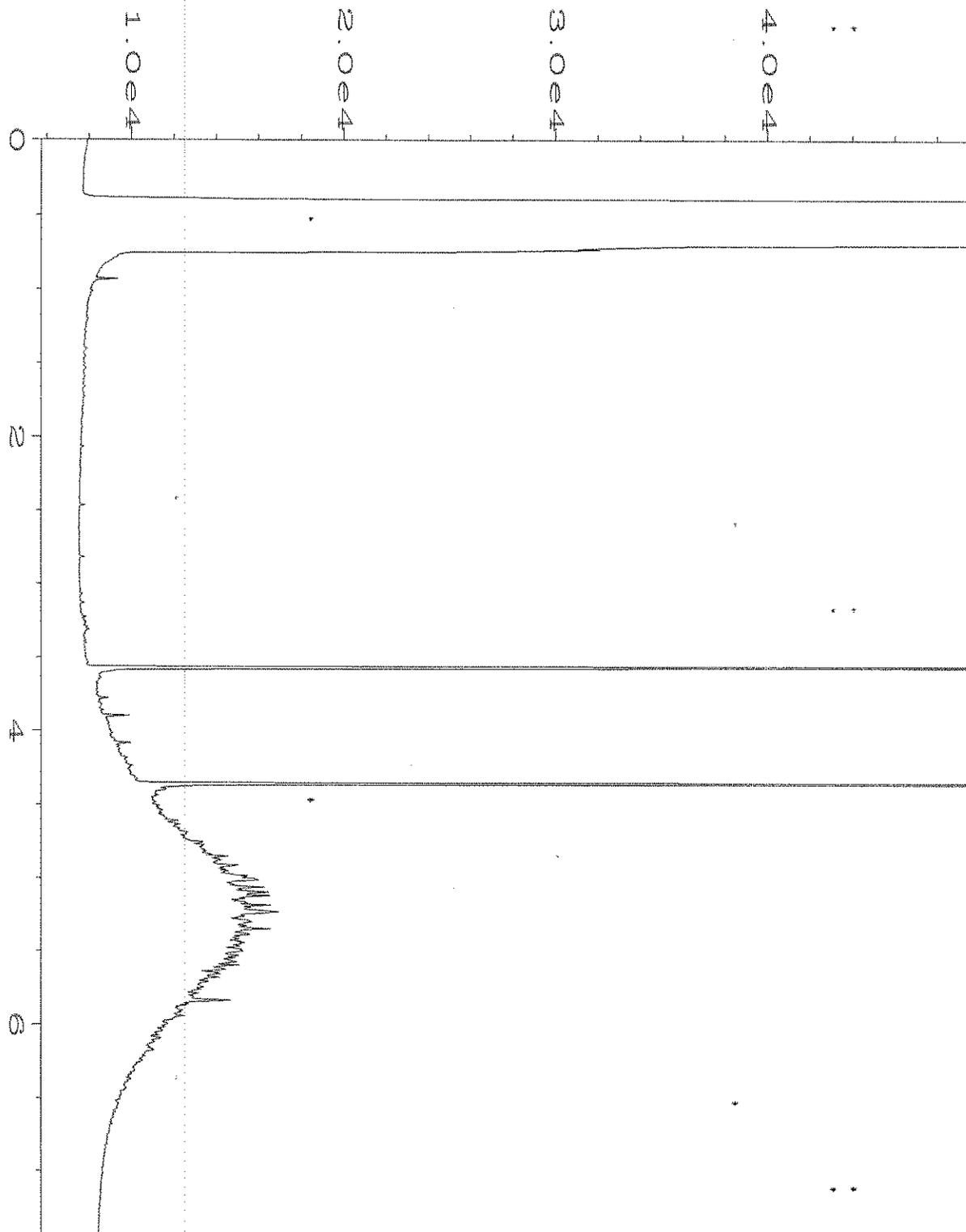
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\027F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 27
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-23	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:30 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:58 AM		



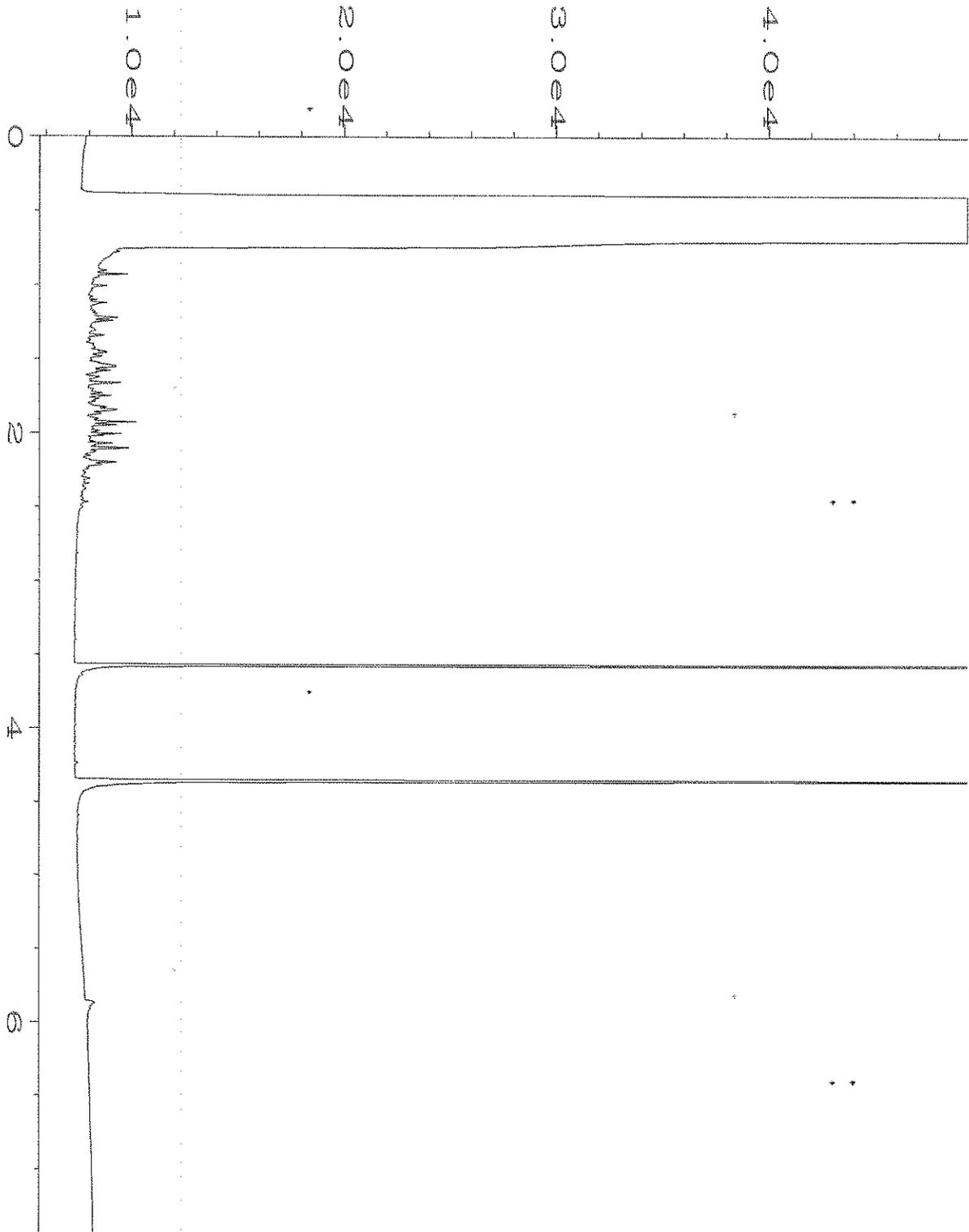
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\028F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 28
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-29	Sequence Line	: 7
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 31 Jul 20 03:42 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:58 AM		



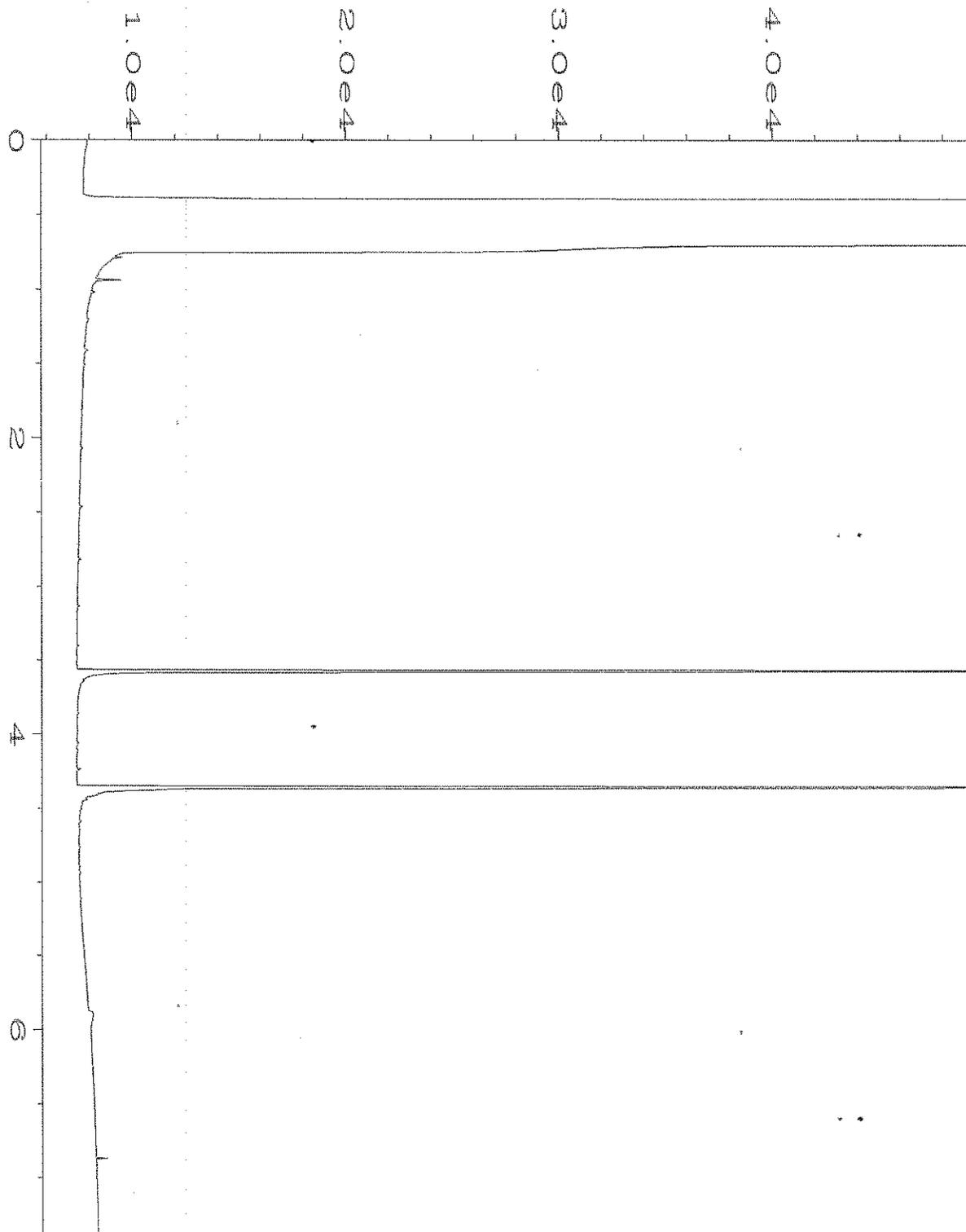
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\029F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 29
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-30	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 03:54 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:58 AM		



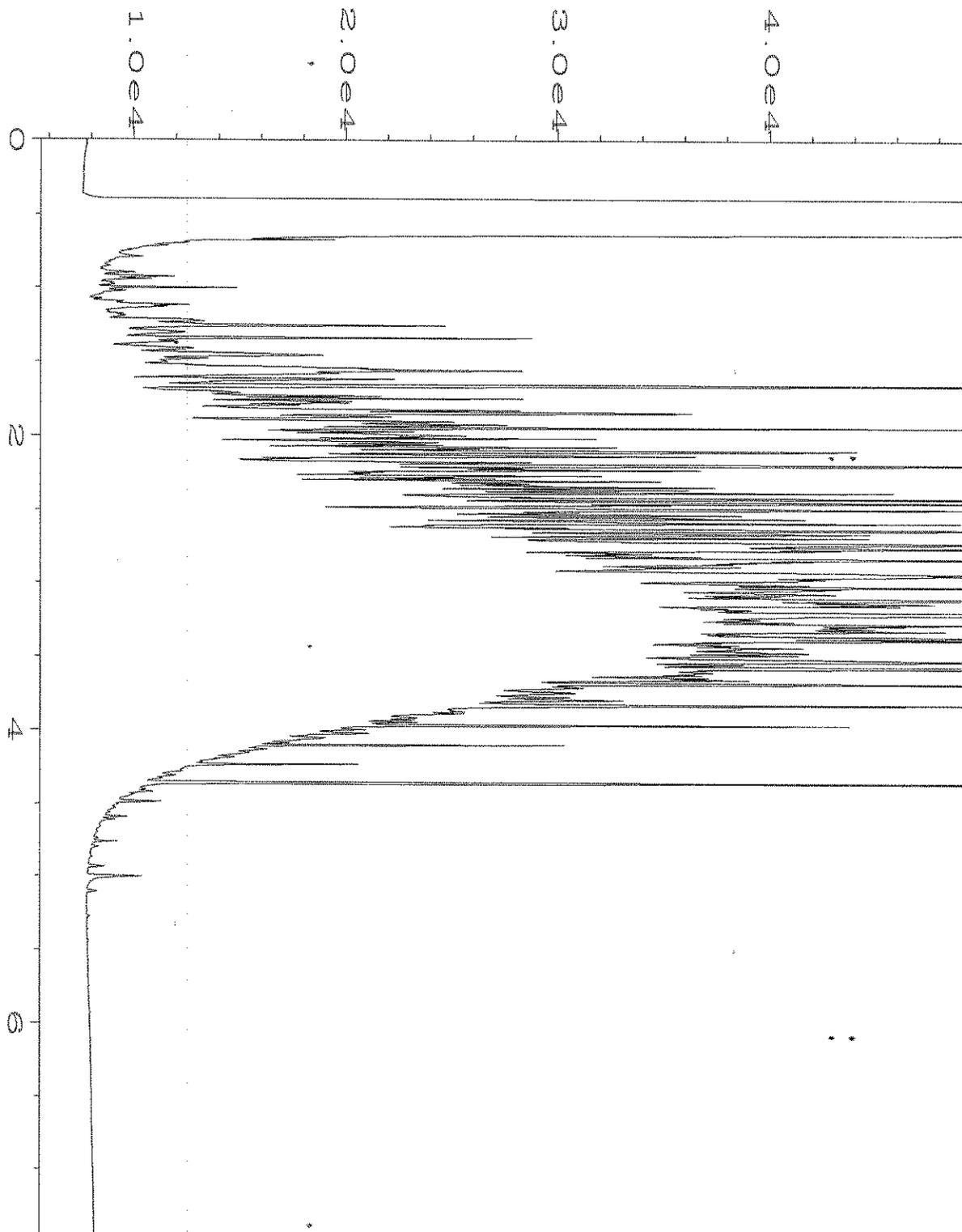
Data File Name	: C:\HPCHEM\1\DATA\07-31-20\030F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 30
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-31	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 04:06 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:58 AM		



Data File Name	: C:\HPCHEM\1\DATA\07-31-20\031F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 31
Instrument	: GC1	Injection Number	: 1
Sample Name	: 007523-32	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 04:18 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:58 AM		



Data File Name	: C:\HPCHEM\1\DATA\07-31-20\018F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 18
Instrument	: GC1	Injection Number	: 1
Sample Name	: 00-1754 mb	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 01:21 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:57 AM		



Data File Name	: C:\HPCHEM\1\DATA\07-31-20\003F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 3
Instrument	: GC1	Injection Number	: 1
Sample Name	: 500 Dx 60-170C	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 31 Jul 20 04:42 PM	Analysis Method	: DX.MTH
Report Created on:	03 Aug 20 07:57 AM		

**SAMPLE CHAIN OF CUSTODY**

MC 07-30-20

Page # 1 of 4

BoS US5

Report To: Andrew Funkofski/Adam Givittin

Company: Aspect Consulting

Address: 710 2nd Ave, Ste. 550

City, State, ZIP: Seattle, WA 98104

Phone: (206)413-5411 Email: ajonko@aspectconsulting.com

207523

SAMPLERS (signature) [Signature]  
 PROJECT NAME: Texaco Strickland  
 PO #: 180357

REMARKS: AP  
 INVOICE TO: AP

TURNAROUND TIME: 1 week  
 Standard turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Archive samples  
 Other  
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXN 8260	Hold Pending			
MMW-20-25.5'	01 A-E	7/30/20	0914	Soil	5	X	X							X			
MMW-20-8'	02		0921		1	X	X							X			
MMW-20-10.5'	03		0928		1										X		
MMW-20-13'	04		0933		1	X	X							X			
MMW-20-15.5'	05		0936		1									X			
MMW-20-17.5'	06		0943		1									X			
MMW-20-20'	07 A-D		0949		4									X			
MMW-20-22.5'	08 A-E		0951		5									X			
MMW-20-25'	09		1007		5									X			
MMW-25-2.5'	10		0716		5									X			

SIGNATURE		PRINT NAME		COMPANY		DATE		TIME	
Relinquished by: <u>[Signature]</u>		Rachel Corwell		Aspect Consulting		7/30/20		1558	
Received by: <u>[Signature]</u>		Liz Weber-Brya		Fib		7/30/20		1558	
Relinquished by:				Samples received at		3		°C	

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

007523

SAMPLE CHAIN OF CUSTODY

ME 07-30-20

Page # 2 of 4

Report To: Andrew Von Kofski / Adam Griffin

Company: Aspect Consulting

Address: 710 2nd Ave, Ste. 550

City, State, ZIP: Seattle, WA 98104

Phone: (206) 413-5411 Email: andyvonk@aspect.com

SAMPLERS (signature) [Signature]

PROJECT NAME: Texaco Shrinkland

REMARKS: Texaco Shrinkland

PO #

180357

INVOICE TO

AP

TURNAROUND TIME: 1558

SAMPLE DISPOSAL:  Standard turnaround,  RUSH,  Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX N 8260	Hold Pending				
MW-25-5'	11A-D	7/30/20	0710	Soil	4													
MW-25-8'	12A-E		0723		5	X	X								X			
MW-25-10.5'	13		0729		5										X			
MW-25-13'	14		0734		5										X			
MW-25-15'	15		0740		5										X			
MW-25-17.5'	16A-D		0745		4										X			
MW-25-20'	17A-B		0750		5										X			
MW-25-22.5'	18		0757		5										X			
MW-25-25	19A-D		0804		5										X			only 3 vials
B-10-2.5	20A-B		1134		5										X			

Friedman & Bryga, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>Rachel Cornwell</u>	<u>Aspect Consulting</u>	<u>7/30/20</u>	<u>1558</u>
Relinquished by:				
Received by:	<u>LiZ Webber Bryga</u>	<u>F&amp;B</u>	<u>7/30/20</u>	<u>1558</u>

007523

SAMPLE CHAIN OF CUSTODY

ME 07-30-20

Bo5

Report To: Andrew Hinko for L Adams Griffin

Company: Aspect Consulting

Address: 710 2nd Ave, Ste. 550

City, State, ZIP: Seattle, WA 98104

Phone: (206) 413-5411 Email: ayonko@aspectconsulting.com

SAMPLERS (signature)

PROJECT NAME

Texaco Smickland

REMARKS

aspectconsulting.com

PO #

180357

INVOICE TO

AP

Page #

3

of

4

155

TURNAROUND TIME

Standard turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Archive samples

Other

Default: Dispose after 30 days

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes				
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX 260C		HCB Pending					
B-10-6	R1 A.E	7/30/20	1140	Soil	5															
B-10-7.5	R2		1148		5															
B-10-12.5	R3		1200		5	X	X													
B-10-16	R4		1207		5															
B-10-17.5	R5 AD		1247		4															No 402 jar
B-10-20	R6 A.E		1253		5															
B-10-22.5	R7		1300		5															
B-10-25	R8		1313		5															
MW-21A-2.5	R9		1341		5	X	X													
MW-22A-2.5	R10		1355		5	X	X													

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Reinquished by: Rachel Cornwell

Rachel Cornwell

Aspect Consulting

7/30/20

1558

Received by: Lin D. Weber

Lin Weber - Bruya

EB

7/30/20

1558

Reinquished by: Lin D. Weber

Lin Weber - Bruya

EB

7/30/20

1558

Ph. (206) 285-8282

Seattle, WA 98119-2029

Friedman & Bruya, Inc.

3012 16th Avenue West

007523

SAMPLE CHAIN OF CUSTODY

ME 07-30-20

Page # 4 of 9 855

Report To Andrew Yankowski / Adam Griffin

Company Aspect Consulting

Address 710 2nd Ave, Ste. 550

City, State, ZIP Seattle, WA 98104

Phone 206 413-5411 Email ayankowski@aspectconsulting.com

SAMPLERS (signature) [Signature]

PROJECT NAME TEXACO STRICKLAND

REMARKS

PO # 180357

INVOICE TO AR

TURNAROUND TIME Standard turnaround  
 Standard turnaround  
 RUSH  
Rush charges authorized by:

SAMPLE DISPOSAL  
 Archive samples  
 Other  
Default: Dispose after 30 days

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXN8260C	Notes
MW-22B-5	3(A-D)	7/30/20	1434	Soil	15	X	X						X	
DUP-4	3(A-E)	7/30/20	---	Soil	5	X	X						X	
DUP-5	33 1	7/30/20	---	Soil	5									X
Trip blank	3(A-B)	7/30/20	---	AQ	2		X							

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: [Signature]

Rachel Connell

Aspect Consulting

7/30/20

1558

Received by: [Signature]

Liz Webber-Bray

FiB

7/30/20

1558

Relinquished by:

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 11, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on August 5, 2020 from the Texaco Strickland PO 180357, F&BI 008076 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0811R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 5, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 008076 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
008076 -01	B-09-2.5
008076 -02	B-09-4
008076 -03	B-09-6
008076 -04	B-12-2.5
008076 -05	B-12-5
008076 -06	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

Date Extracted: 08/07/20

Date Analyzed: 08/07/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
B-09-2.5 008076-01	<5	96
B-09-6 008076-03	<5	96
Method Blank 00-1400 MB	<5	97

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

Date Extracted: 08/07/20

Date Analyzed: 08/07/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate <u>(% Recovery)</u> (Limit 51-134)
Trip Blank 008076-06	<100	95
Method Blank 00-1781 MB	<100	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

Date Extracted: 08/06/20

Date Analyzed: 08/06/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
B-09-2.5 008076-01	<50	<250	92
B-09-6 008076-03	<50	<250	93
Method Blank 00-1777 MB	<50	<250	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B-09-2.5	Client:	Aspect Consulting, LLC
Date Received:	08/05/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/06/20	Lab ID:	008076-01
Date Analyzed:	08/06/20	Data File:	080325.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B-09-6	Client:	Aspect Consulting, LLC
Date Received:	08/05/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/06/20	Lab ID:	008076-03
Date Analyzed:	08/06/20	Data File:	080326.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/06/20	Lab ID:	00-1728 mb
Date Analyzed:	08/06/20	Data File:	080310.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	08/05/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/06/20	Lab ID:	008076-06
Date Analyzed:	08/06/20	Data File:	080324.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/06/20	Lab ID:	00-1729 mb
Date Analyzed:	08/06/20	Data File:	080309.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 008076-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	90	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 008040-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	108	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 008076-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	86	96	73-135	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	84	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008076-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	1.0	<0.03	88	84	50-150	5
Toluene	mg/kg (ppm)	1.0	<0.05	90	84	50-150	7
Ethylbenzene	mg/kg (ppm)	1.0	<0.05	92	86	50-150	7
m,p-Xylene	mg/kg (ppm)	2.0	<0.1	88	82	50-150	7
o-Xylene	mg/kg (ppm)	1.0	<0.05	90	83	50-150	8
Naphthalene	mg/kg (ppm)	1.0	<0.05	95	87	50-150	9

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	1.0	101	70-130
Toluene	mg/kg (ppm)	1.0	104	70-130
Ethylbenzene	mg/kg (ppm)	1.0	105	70-130
m,p-Xylene	mg/kg (ppm)	2.0	100	70-130
o-Xylene	mg/kg (ppm)	1.0	102	70-130
Naphthalene	mg/kg (ppm)	1.0	106	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/11/20

Date Received: 08/05/20

Project: Texaco Strickland PO 180357, F&BI 008076

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008091-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Benzene	ug/L (ppb)	10	<0.35	98	50-150
Toluene	ug/L (ppb)	10	2.3	94 b	50-150
Ethylbenzene	ug/L (ppb)	10	<1	97	50-150
m,p-Xylene	ug/L (ppb)	20	<2	94	50-150
o-Xylene	ug/L (ppb)	10	<1	95	50-150
Naphthalene	ug/L (ppb)	10	<1	100	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	98	98	70-130	0
Toluene	ug/L (ppb)	10	97	99	70-130	2
Ethylbenzene	ug/L (ppb)	10	98	99	70-130	1
m,p-Xylene	ug/L (ppb)	20	95	96	70-130	1
o-Xylene	ug/L (ppb)	10	96	97	70-130	1
Naphthalene	ug/L (ppb)	10	101	102	70-130	1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

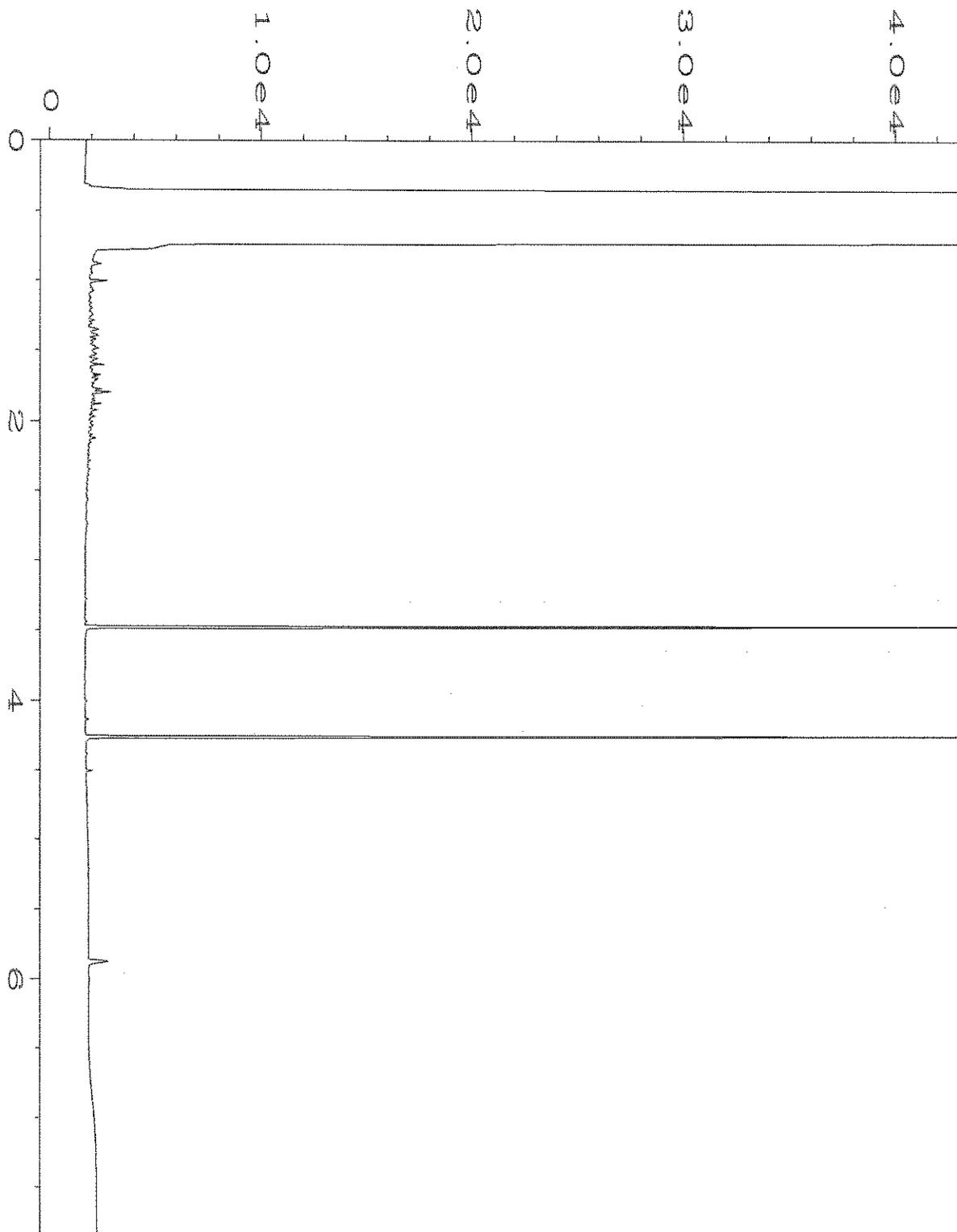
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

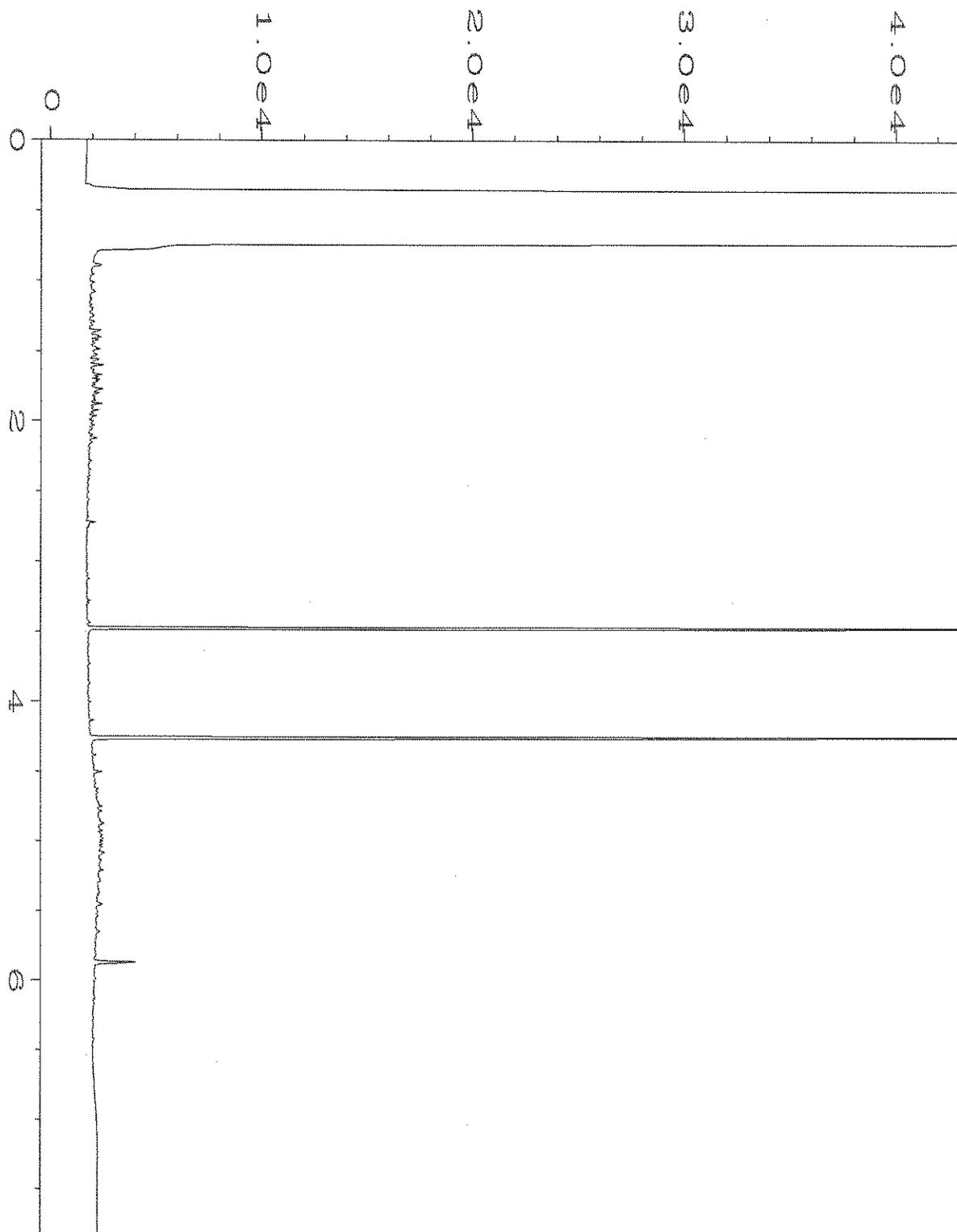
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

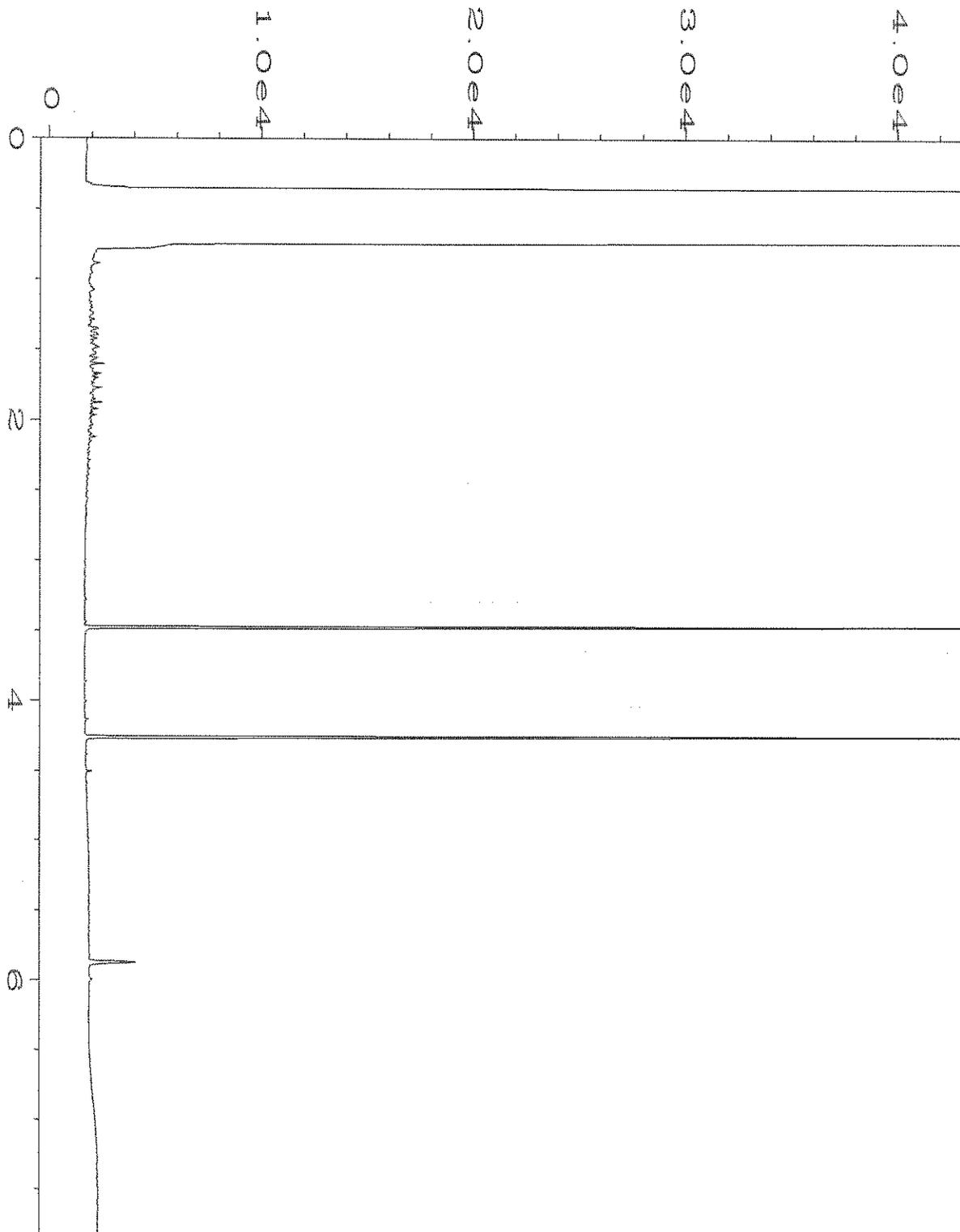
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



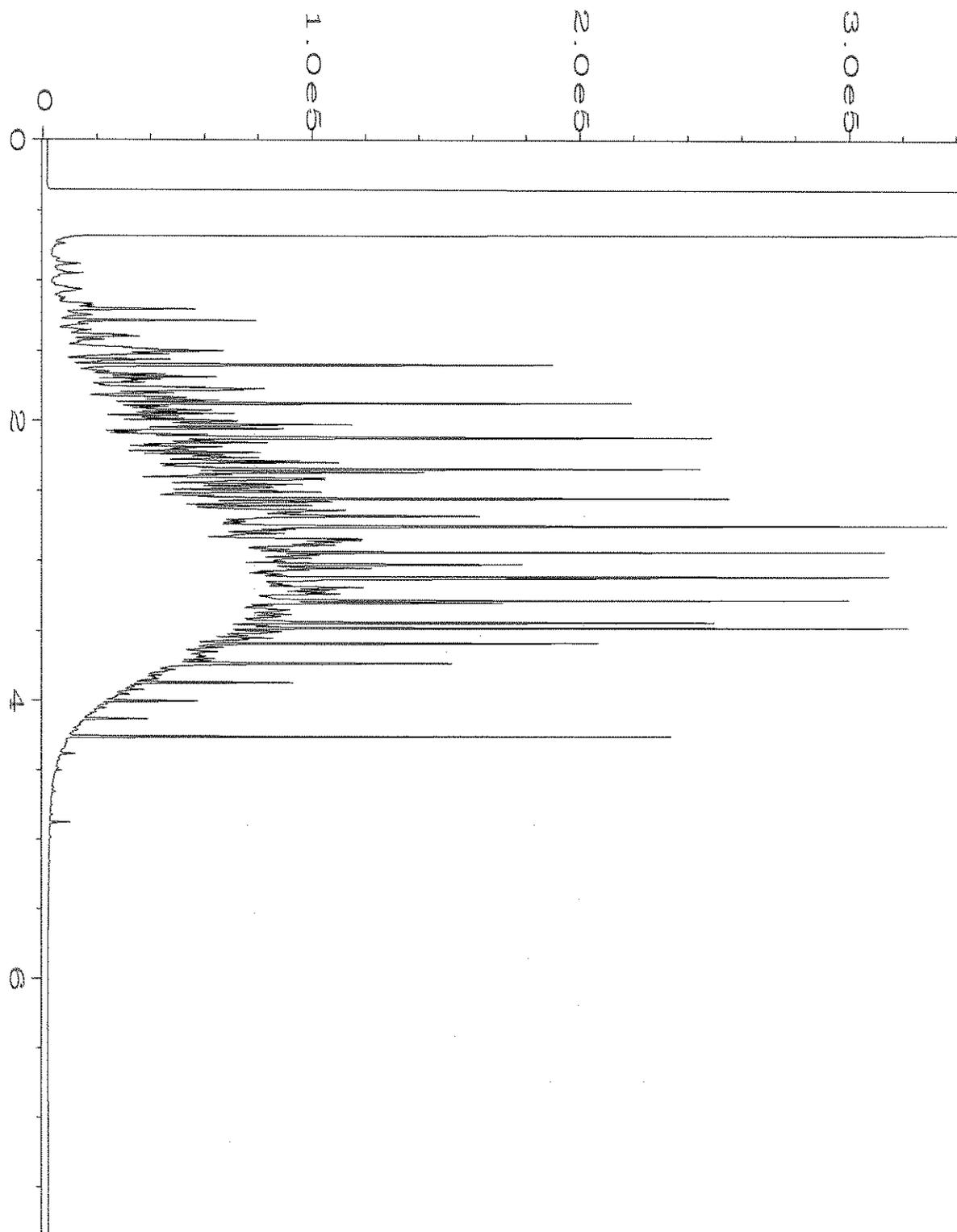
Data File Name	: C:\HPCHEM\4\DATA\08-06-20\017F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 17
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008076-01	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 06 Aug 20 11:03 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	07 Aug 20 08:40 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-06-20\018F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 18
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008076-03	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 06 Aug 20 11:16 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	07 Aug 20 08:41 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-06-20\013F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 13
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 00-1777 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 06 Aug 20 10:12 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	07 Aug 20 08:41 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-06-20\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 60-170B	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 06 Aug 20 02:01 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	07 Aug 20 08:41 AM		

008076

SAMPLE CHAIN OF CUSTODY

ME 08-05-20

Page # 1 of 1

Report To: Andrew Yonkofski / Andrew Carlton  
 Company: Aspect Consulting  
 Address: 710 2nd Ave, Ste. 550  
 City, State, ZIP: Seattle, WA, 98104  
 Phone: (206) 413-5711 Email: ayonkofski@aspectconsulting.com

SAMPLERS (signature) <u>David Lund</u>	PROJECT NAME <u>Texaco Strickland</u>
PO # <u>180357</u>	REMARKS <u>AP</u>
INVOICE TO	

TURNAROUND TIME Standard turnaround <u>1w1</u>
RUSH <input type="checkbox"/> RUSH <input checked="" type="checkbox"/>
Rush charges authorized by:
SAMPLE DISPOSAL <input type="checkbox"/> Archive samples <input type="checkbox"/> Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXN 8260	Hold Pending			
B-09-25	01A-B	8/5/20	1422	Soil	5	X	X							X			
B-09-4	02		1427												X		
B-09-6	03		1445			X	X							X			
B-12-25	04		1542											X			
B-12-5	05		1554											X			
Trop Blank	06 A-B			AG	2	X	X										

Run NWTPH-Gx and 8260s  
do not run NWTPH-Dx  
Andrew Yonkofski  
08/06/2020

Samples received at 1

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>David Lund</u>	<u>David Lund</u>	<u>Aspect Consulting</u>	<u>8/5/20</u>	<u>711</u>
Relinquished by:				
Received by:	<u>FB</u>			
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

September 1, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on August 18, 2020 from the Texaco Strickland PO 180357, F&BI 008261 project. There are 51 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0901R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 18, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 008261 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
008261 -01	MW-1-081820
008261 -02	MW-2-081720
008261 -03	MW-4-081820
008261 -04	MW-6-081720
008261 -05	MW-7-081720
008261 -06	MW-8-081820
008261 -07	MW-9-081820
008261 -08	MW-10-081820
008261 -09	MW-11-081720
008261 -10	MW-12-081720
008261 -11	MW-13-081720
008261 -12	MW-14-081820
008261 -13	MW-16-081720
008261 -14	MW-17-081720
008261 -15	MW-18-081820
008261 -16	MW-19-081820
008261 -17	MW-20-081720
008261 -18	MW-21-081720
008261 -19	MW-22-081720
008261 -20	MW-23-081820
008261 -21	MW-24-081820
008261 -22	MW-25-081820
008261 -23	MW-26-081820
008261 -24	DUP-01-081720
008261 -25	DUP-02-081820
008261 -26	RB-01-081720
008261 -27	RB-02-081820
008261 -28	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

Date Extracted: 08/24/20

Date Analyzed: 08/24/20 and 08/25/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-1-081820 008261-01 1/10	14,000	102
MW-2-081720 008261-02	770	106
MW-4-081820 008261-03 1/100	170,000	104
MW-6-081720 008261-04	<100	95
MW-7-081720 008261-05	<100	92
MW-8-081820 008261-06 1/100	130,000	100
MW-9-081820 008261-07	<100	94
MW-10-081820 008261-08	5,100	102
MW-11-081720 008261-09 1/20	27,000	106
MW-12-081720 008261-10	230	100
MW-13-081720 008261-11	420	104
MW-14-081820 008261-12	5,000	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

Date Extracted: 08/24/20

Date Analyzed: 08/24/20 and 08/25/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-16-081720 008261-13	<100	96
MW-17-081720 008261-14	550	104
MW-18-081820 008261-15	<100	94
MW-19-081820 008261-16	<100	96
MW-20-081720 008261-17	120	99
MW-21-081720 008261-18	7,400	132
MW-22-081720 008261-19 1/10	14,000	106
MW-23-081820 008261-20 1/10	21,000	99
MW-24-081820 008261-21	<100	95
MW-25-081820 008261-22	<100	95
MW-26-081820 008261-23	<100	90
DUP-01-081720 008261-24 1/10	13,000	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

Date Extracted: 08/24/20

Date Analyzed: 08/24/20 and 08/25/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate <u>(% Recovery)</u> (Limit 51-134)
DUP-02-081820 008261-25	<100	95
RB-01-081720 008261-26	<100	94
RB-02-081820 008261-27	<100	93
Trip Blank 008261-28	<100	94
Method Blank 00-1800 MB	<100	95
Method Blank 00-1801 MB	<100	86

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

Date Extracted: 08/19/20

Date Analyzed: 08/21/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-1-081820 008261-01	2,100 x	1,100 x	95
MW-2-081720 008261-02	660 x	310 x	84
MW-4-081820 008261-03	4,500 x	1,000 x	86
MW-6-081720 008261-04	170 x	<250	105
MW-7-081720 008261-05	110 x	<260	86
MW-8-081820 008261-06	3,200 x	550 x	68
MW-9-081820 008261-07	80 x	<250	112
MW-10-081820 008261-08	1,100 x	360 x	98
MW-11-081720 008261-09	1,600 x	260 x	106
MW-12-081720 008261-10	240 x	<250	97
MW-13-081720 008261-11	320 x	<250	84

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

Date Extracted: 08/19/20

Date Analyzed: 08/21/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-14-081820 008261-12	570 x	<250	80
MW-16-081720 008261-13	130 x	<250	100
MW-17-081720 008261-14	270 x	<250	89
MW-18-081820 008261-15	<50	<250	83
MW-19-081820 008261-16	<50	<250	92
MW-20-081720 008261-17	180 x	<250	94
MW-21-081720 008261-18	3,200 x	260 x	80
MW-22-081720 008261-19	2,500 x	<250	86
MW-23-081820 008261-20	1,900 x	<250	90
MW-24-081820 008261-21	76 x	<250	106
MW-25-081820 008261-22	55 x	<250	119

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

Date Extracted: 08/19/20

Date Analyzed: 08/21/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-26-081820 008261-23	<50	<250	119
DUP-01-081720 008261-24	3,100 x	260 x	91
DUP-02-081820 008261-25	53 x	<250	111
RB-01-081720 008261-26	67 x	<250	114
RB-02-081820 008261-27	<50	<250	96
Method Blank 00-1892 MB	<50	<250	82
Method Blank 00-1893 MB	<50	<250	107

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-1-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-01
Date Analyzed:	08/19/20	Data File:	081935.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	88	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	860 ve
Toluene	170 ve
Ethylbenzene	280 ve
m,p-Xylene	560 ve
o-Xylene	170 ve
Naphthalene	84

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-1-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/24/20	Lab ID:	008261-01 1/100
Date Analyzed:	08/26/20	Data File:	082635.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	2,200
Toluene	180
Ethylbenzene	300
m,p-Xylene	580
o-Xylene	170
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-2-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-02
Date Analyzed:	08/19/20	Data File:	081931.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	4.5
Toluene	<1
Ethylbenzene	2.8
m,p-Xylene	2.1
o-Xylene	<1
Naphthalene	15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-4-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-03 1/100
Date Analyzed:	08/24/20	Data File:	082430.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	6,000
Toluene	21,000 ve
Ethylbenzene	2,300
m,p-Xylene	10,000
o-Xylene	4,100
Naphthalene	500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-4-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/24/20	Lab ID:	008261-03 1/1000
Date Analyzed:	08/26/20	Data File:	082637.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	6,400
Toluene	21,000
Ethylbenzene	2,400
m,p-Xylene	11,000
o-Xylene	4,300
Naphthalene	<1,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-6-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-04
Date Analyzed:	08/19/20	Data File:	081931.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-7-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-05
Date Analyzed:	08/19/20	Data File:	081932.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-8-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-06 1/100
Date Analyzed:	08/24/20	Data File:	082431.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	4,800
Toluene	18,000 ve
Ethylbenzene	1,600
m,p-Xylene	7,500
o-Xylene	2,800
Naphthalene	400

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-8-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/24/20	Lab ID:	008261-06 1/1000
Date Analyzed:	08/26/20	Data File:	082638.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	4,900
Toluene	18,000
Ethylbenzene	1,600
m,p-Xylene	7,400
o-Xylene	2,700
Naphthalene	<1,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-9-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-07
Date Analyzed:	08/19/20	Data File:	081933.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-10-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-08 1/10
Date Analyzed:	08/24/20	Data File:	082424.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	490
Toluene	<10
Ethylbenzene	200
m,p-Xylene	240
o-Xylene	<10
Naphthalene	60

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-11-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-09 1/100
Date Analyzed:	08/24/20	Data File:	082432.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	330
Toluene	2,200
Ethylbenzene	790
m,p-Xylene	2,700
o-Xylene	700
Naphthalene	140

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-12-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-10
Date Analyzed:	08/19/20	Data File:	081934.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-13-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-11
Date Analyzed:	08/19/20	Data File:	081935.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	0.75
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-12
Date Analyzed:	08/19/20	Data File:	081936.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	380 ve
Toluene	9.8
Ethylbenzene	32
m,p-Xylene	19
o-Xylene	3.9
Naphthalene	31

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-12 1/10
Date Analyzed:	08/24/20	Data File:	082425.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	93	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	1,200
Toluene	<10
Ethylbenzene	29
m,p-Xylene	<20
o-Xylene	<10
Naphthalene	25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-16-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-13
Date Analyzed:	08/19/20	Data File:	081917.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-17-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-14
Date Analyzed:	08/19/20	Data File:	081932.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1.1
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-18-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-15
Date Analyzed:	08/19/20	Data File:	081918.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1.2
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-19-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-16
Date Analyzed:	08/19/20	Data File:	081919.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-20-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-17
Date Analyzed:	08/19/20	Data File:	081920.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-21-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-18 1/10
Date Analyzed:	08/24/20	Data File:	082426.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	21
Toluene	<10
Ethylbenzene	400
m,p-Xylene	48
o-Xylene	<10
Naphthalene	470

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-19 1/10
Date Analyzed:	08/24/20	Data File:	082427.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	540
Toluene	56
Ethylbenzene	630
m,p-Xylene	1,200
o-Xylene	150
Naphthalene	220

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-20
Date Analyzed:	08/19/20	Data File:	081933.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	880 ve
Toluene	200 ve
Ethylbenzene	330 ve
m,p-Xylene	690 ve
o-Xylene	110
Naphthalene	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/24/20	Lab ID:	008261-20 1/100
Date Analyzed:	08/26/20	Data File:	082636.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	3,100
Toluene	210
Ethylbenzene	400
m,p-Xylene	790
o-Xylene	110
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-24-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-21
Date Analyzed:	08/19/20	Data File:	081926.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-25-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-22
Date Analyzed:	08/19/20	Data File:	081927.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-26-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-23
Date Analyzed:	08/19/20	Data File:	081911.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DUP-01-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-24 1/10
Date Analyzed:	08/24/20	Data File:	082429.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	500
Toluene	52
Ethylbenzene	570
m,p-Xylene	1,100
o-Xylene	140
Naphthalene	200

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DUP-02-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-25
Date Analyzed:	08/19/20	Data File:	081928.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1.2
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	RB-01-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-26
Date Analyzed:	08/19/20	Data File:	081929.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	89	50	150
Toluene-d8	93	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	RB-02-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-27
Date Analyzed:	08/19/20	Data File:	081930.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	008261-28
Date Analyzed:	08/19/20	Data File:	081912.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/26/20	Lab ID:	00-1868 mb
Date Analyzed:	08/26/20	Data File:	082609.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	00-1852 mb
Date Analyzed:	08/19/20	Data File:	081909.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	08/19/20	Lab ID:	00-1853 mb
Date Analyzed:	08/19/20	Data File:	081910.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 008261-05 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	93	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 008261-21 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	95	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	104	100	61-133	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	92	96	61-133	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008261-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	106	50-150
Toluene	ug/L (ppb)	10	<1	100	50-150
Ethylbenzene	ug/L (ppb)	10	<1	103	50-150
m,p-Xylene	ug/L (ppb)	20	<2	102	50-150
o-Xylene	ug/L (ppb)	10	<1	102	50-150
Naphthalene	ug/L (ppb)	10	<1	104	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent		Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	106	104	70-130	2
Toluene	ug/L (ppb)	10	101	101	70-130	0
Ethylbenzene	ug/L (ppb)	10	102	100	70-130	2
m,p-Xylene	ug/L (ppb)	20	100	98	70-130	2
o-Xylene	ug/L (ppb)	10	101	100	70-130	1
Naphthalene	ug/L (ppb)	10	109	105	70-130	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008261-23 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Benzene	ug/L (ppb)	10	<0.35	100	50-150
Toluene	ug/L (ppb)	10	<1	98	50-150
Ethylbenzene	ug/L (ppb)	10	<1	100	50-150
m,p-Xylene	ug/L (ppb)	20	<2	96	50-150
o-Xylene	ug/L (ppb)	10	<1	97	50-150
Naphthalene	ug/L (ppb)	10	<1	103	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	98	103	70-130	5
Toluene	ug/L (ppb)	10	95	100	70-130	5
Ethylbenzene	ug/L (ppb)	10	97	102	70-130	5
m,p-Xylene	ug/L (ppb)	20	94	98	70-130	4
o-Xylene	ug/L (ppb)	10	95	100	70-130	5
Naphthalene	ug/L (ppb)	10	101	103	70-130	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/01/20

Date Received: 08/18/20

Project: Texaco Strickland PO 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008381-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Benzene	ug/L (ppb)	50	<0.35	94	76-125
Toluene	ug/L (ppb)	50	<1	93	76-122
Ethylbenzene	ug/L (ppb)	50	<1	95	69-135
m,p-Xylene	ug/L (ppb)	100	<2	96	69-135
o-Xylene	ug/L (ppb)	50	<1	96	60-140
Naphthalene	ug/L (ppb)	50	<1	91	44-164

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	50	92	91	69-134	1
Toluene	ug/L (ppb)	50	99	98	72-122	1
Ethylbenzene	ug/L (ppb)	50	98	95	77-124	3
m,p-Xylene	ug/L (ppb)	100	101	100	81-112	1
o-Xylene	ug/L (ppb)	50	96	94	81-121	2
Naphthalene	ug/L (ppb)	50	104	104	64-133	0

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

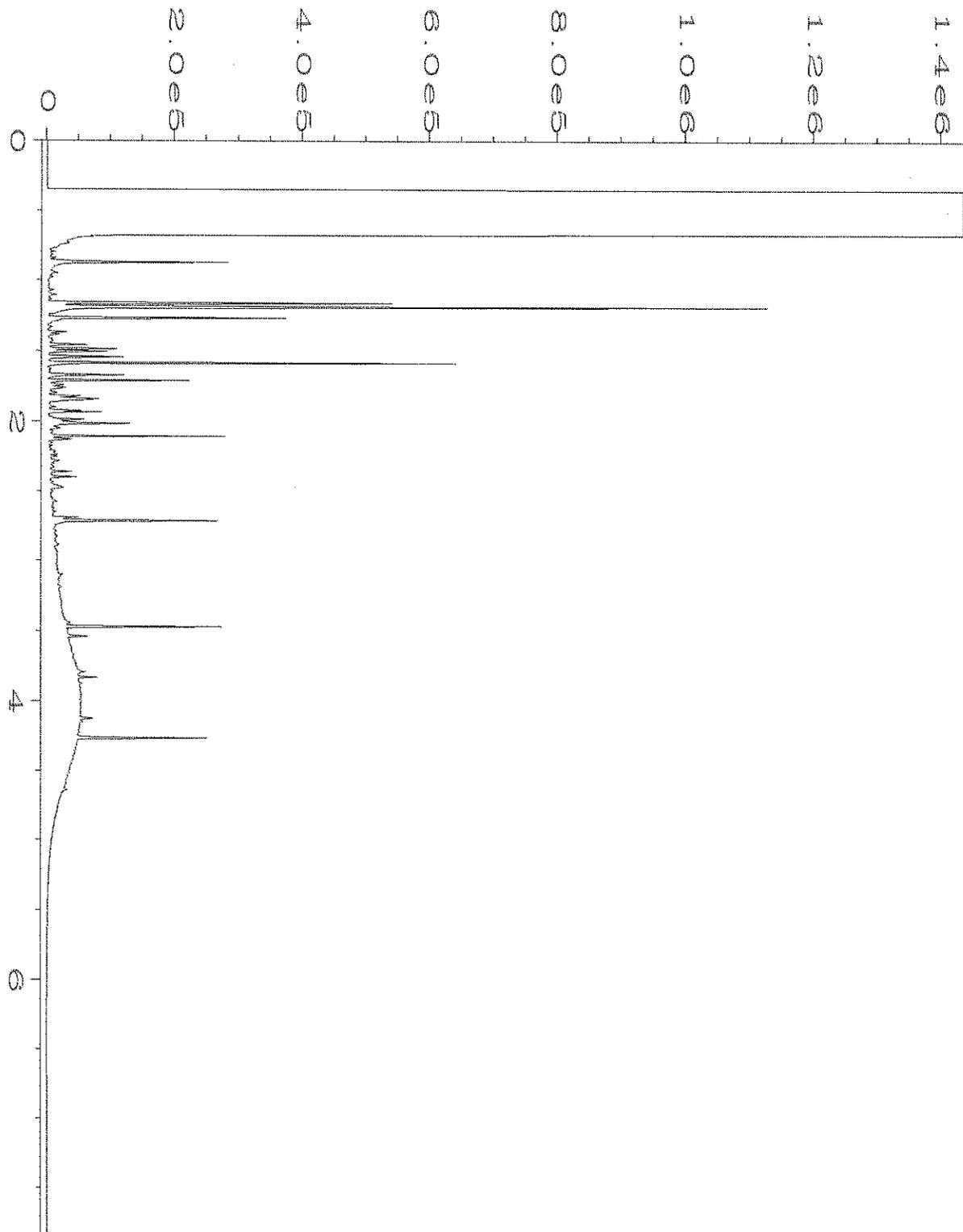
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

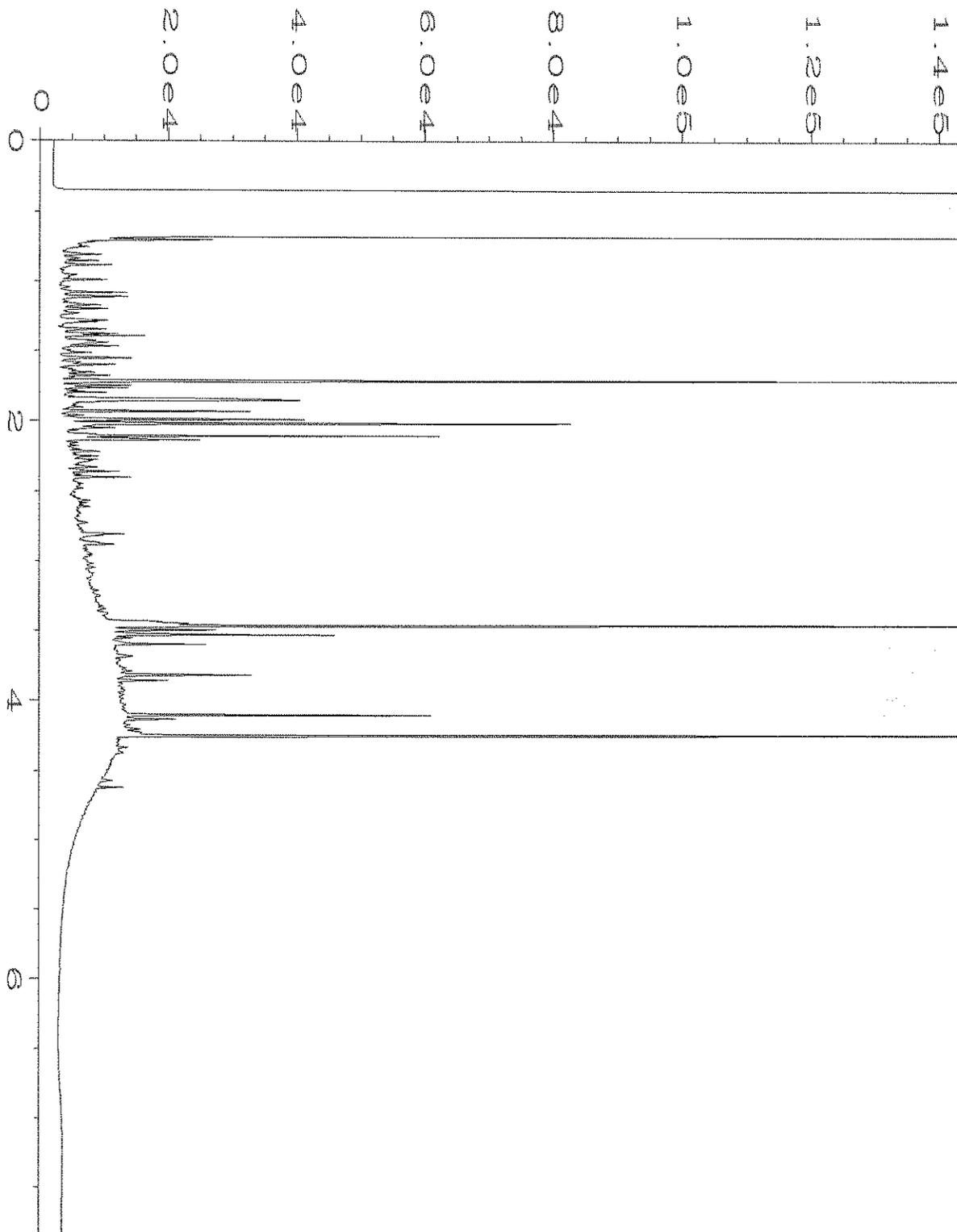
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

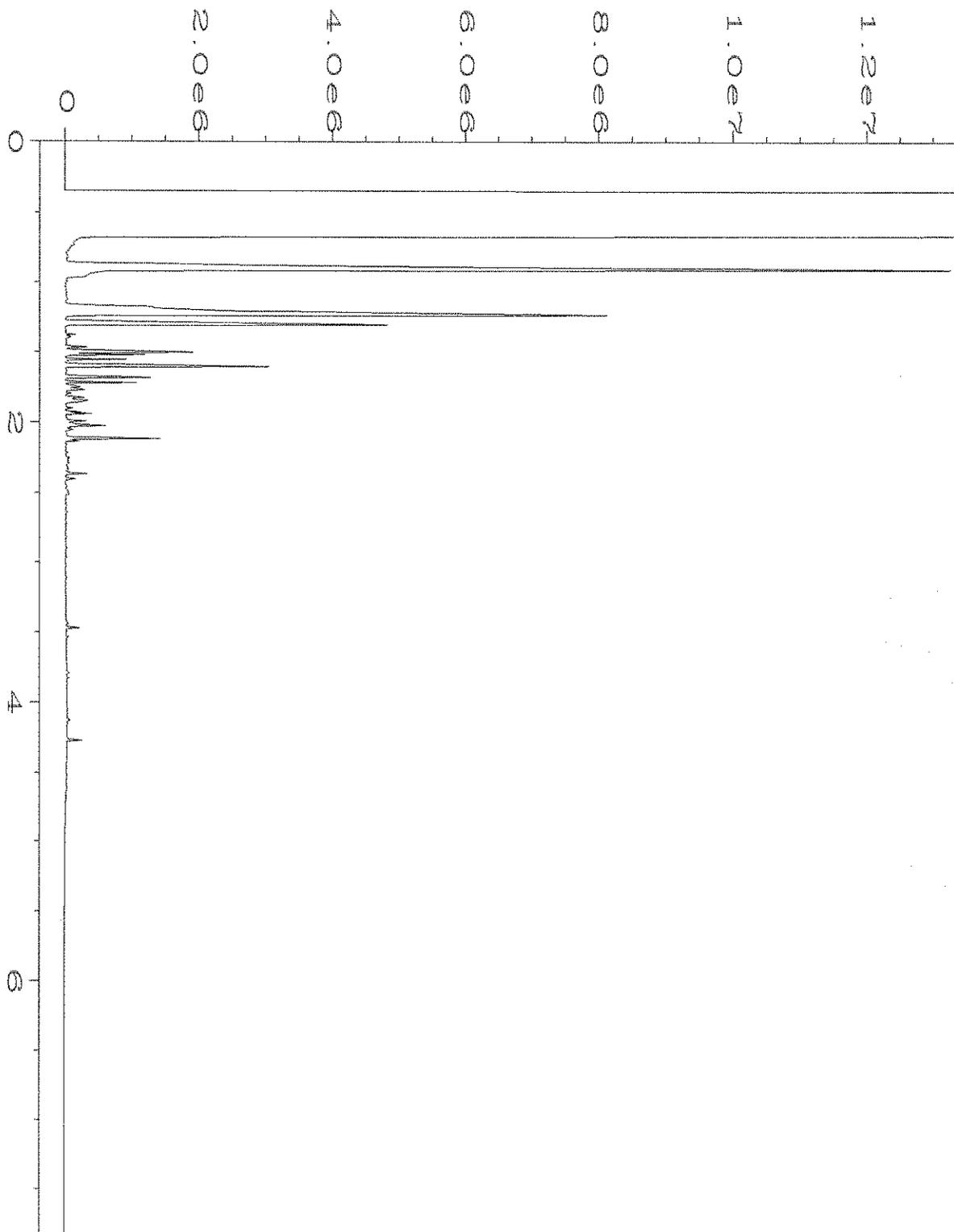
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



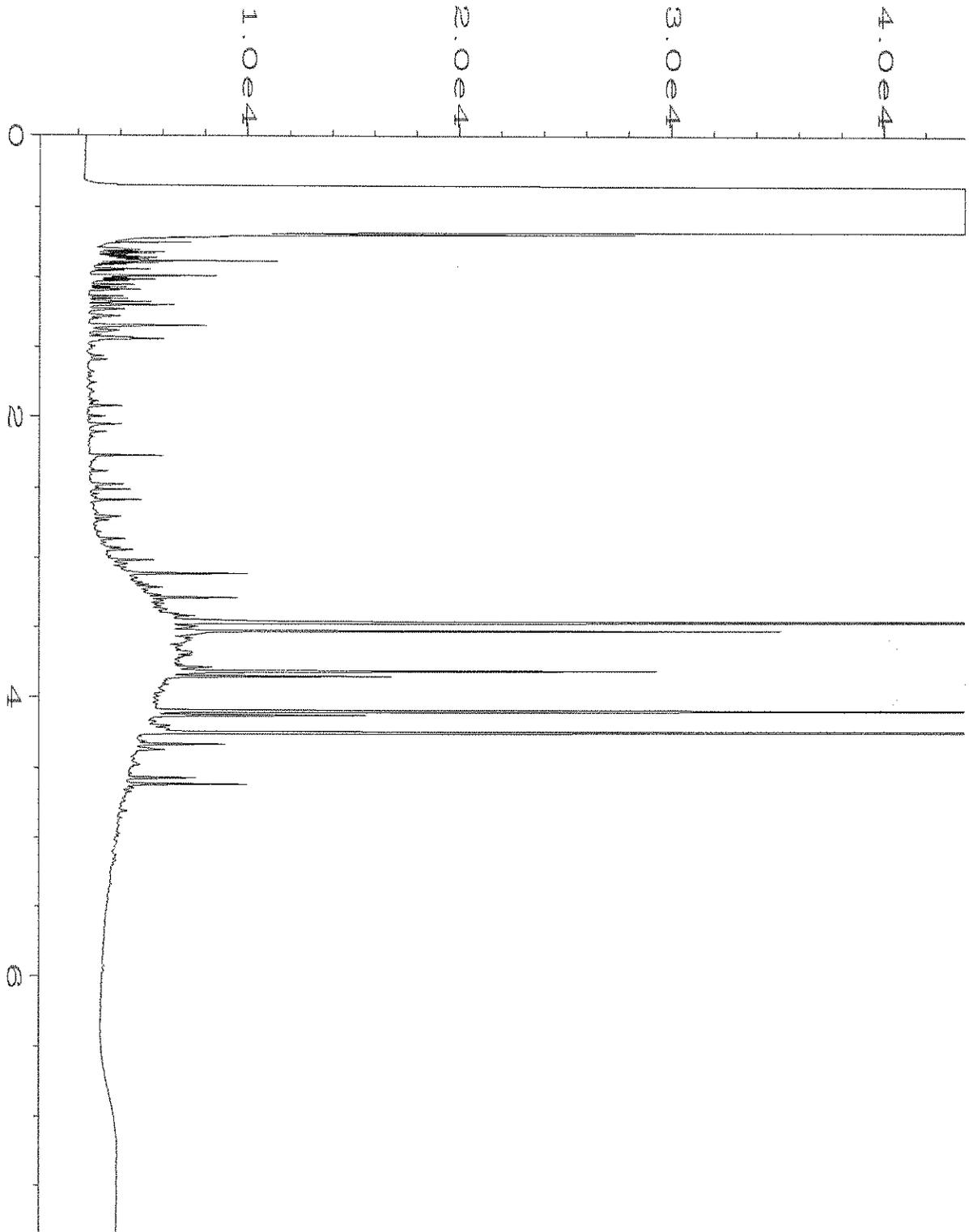
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Operator	: TL	Vial Number	: 6
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-01	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 06:59 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:37 AM		



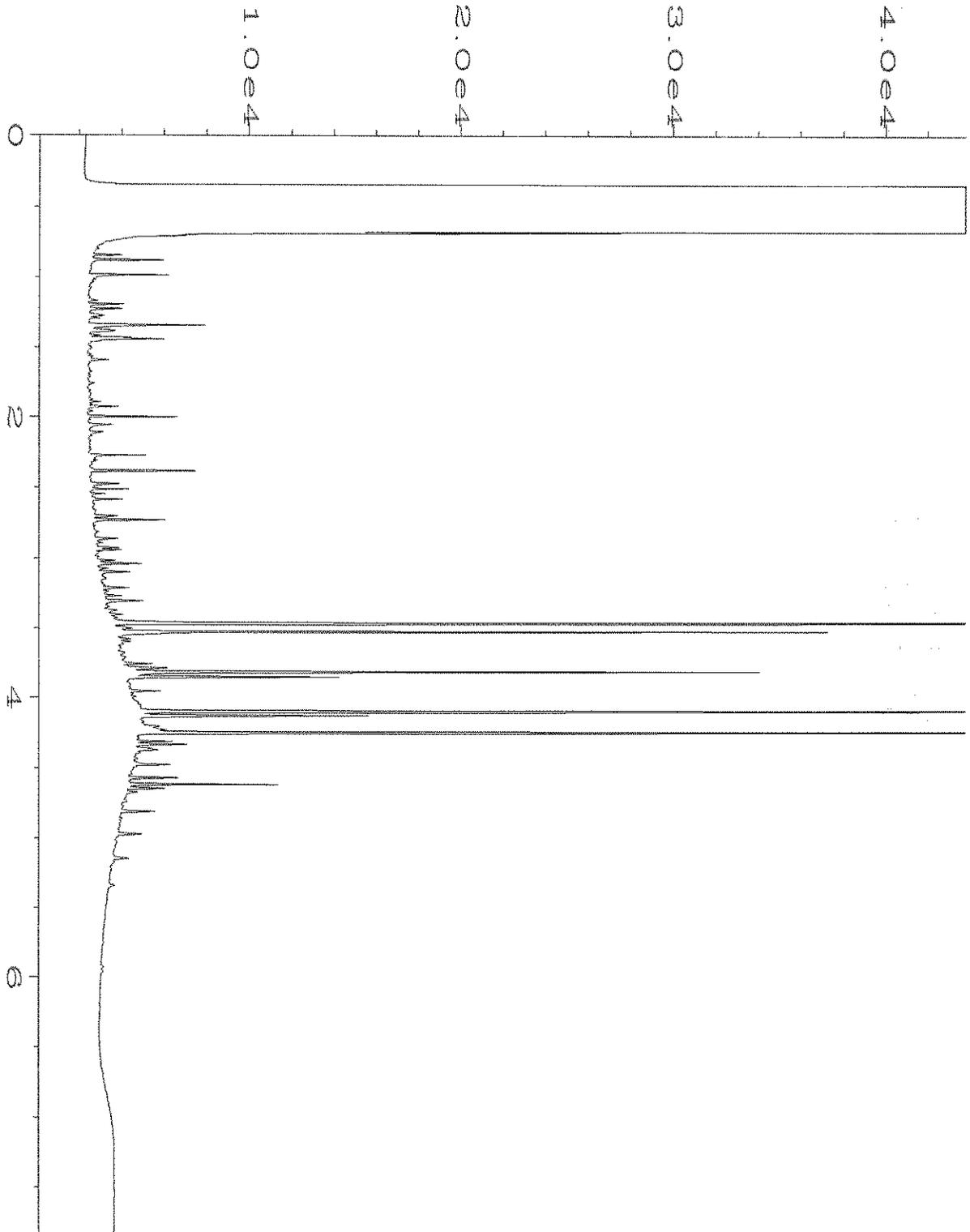
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-02	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 07:09 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:37 AM		



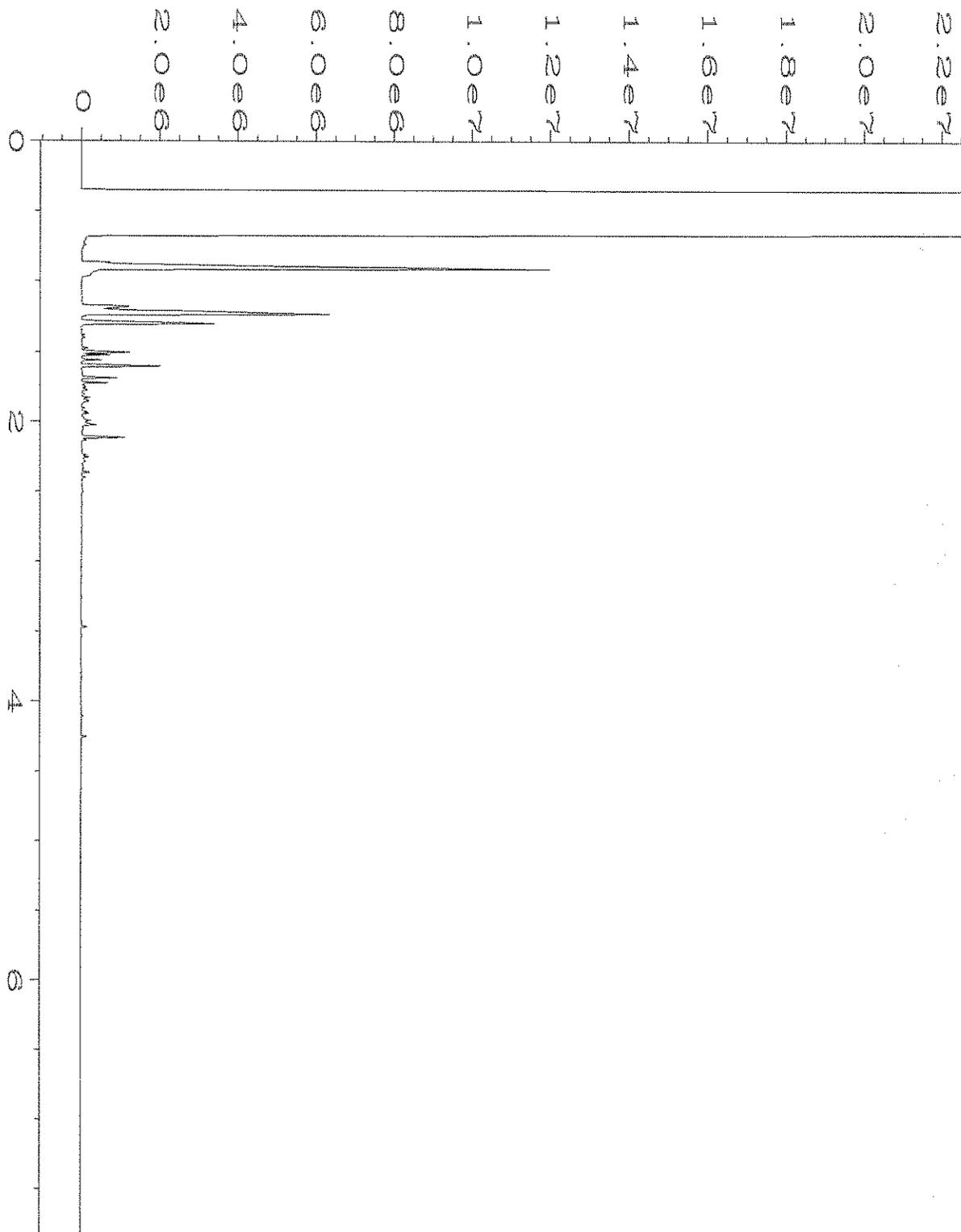
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Operator	: TL	Vial Number	: 8
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-03	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 07:32 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:38 AM		



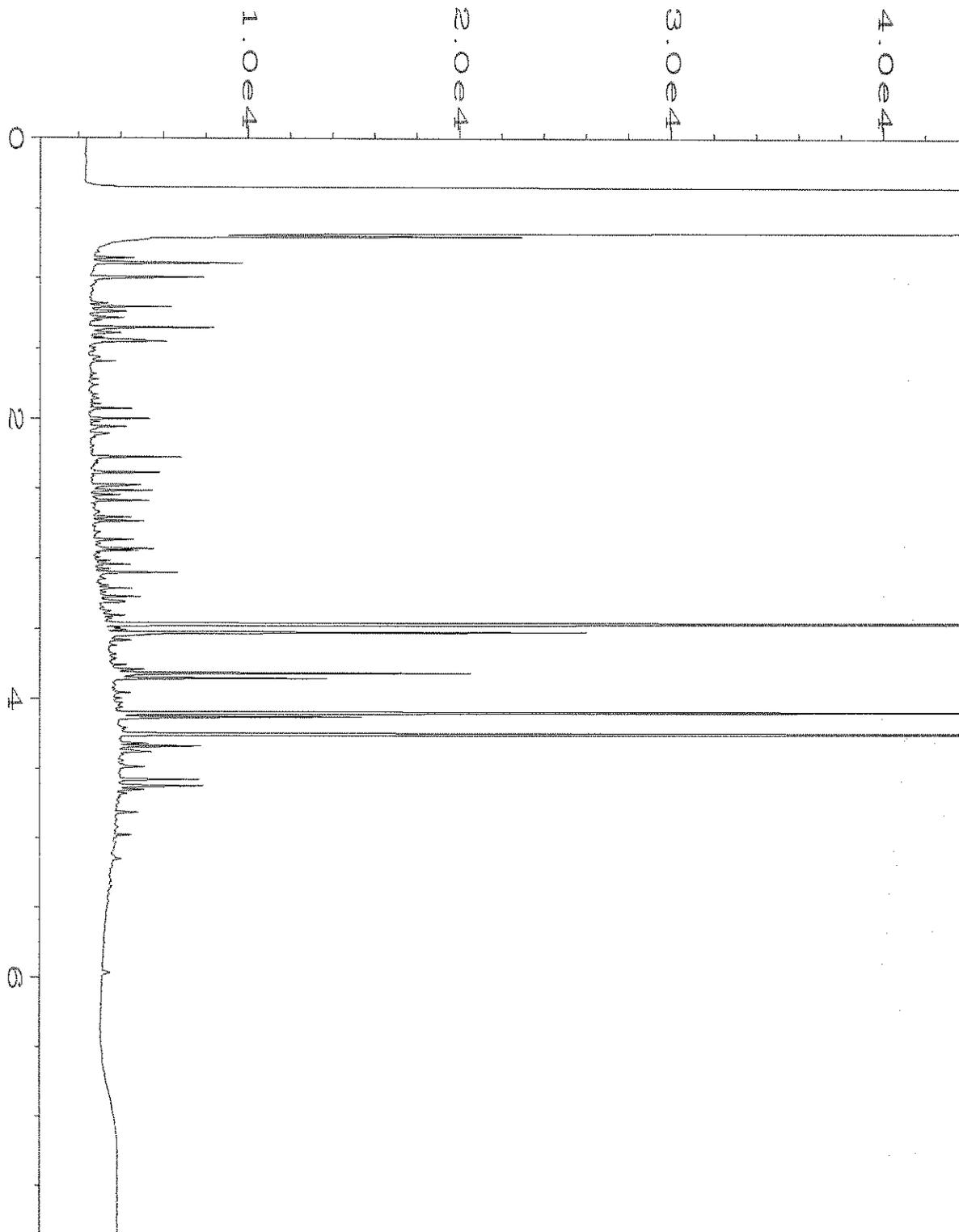
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Operator	: TL	Vial Number	: 9
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-04	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 07:42 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:38 AM		



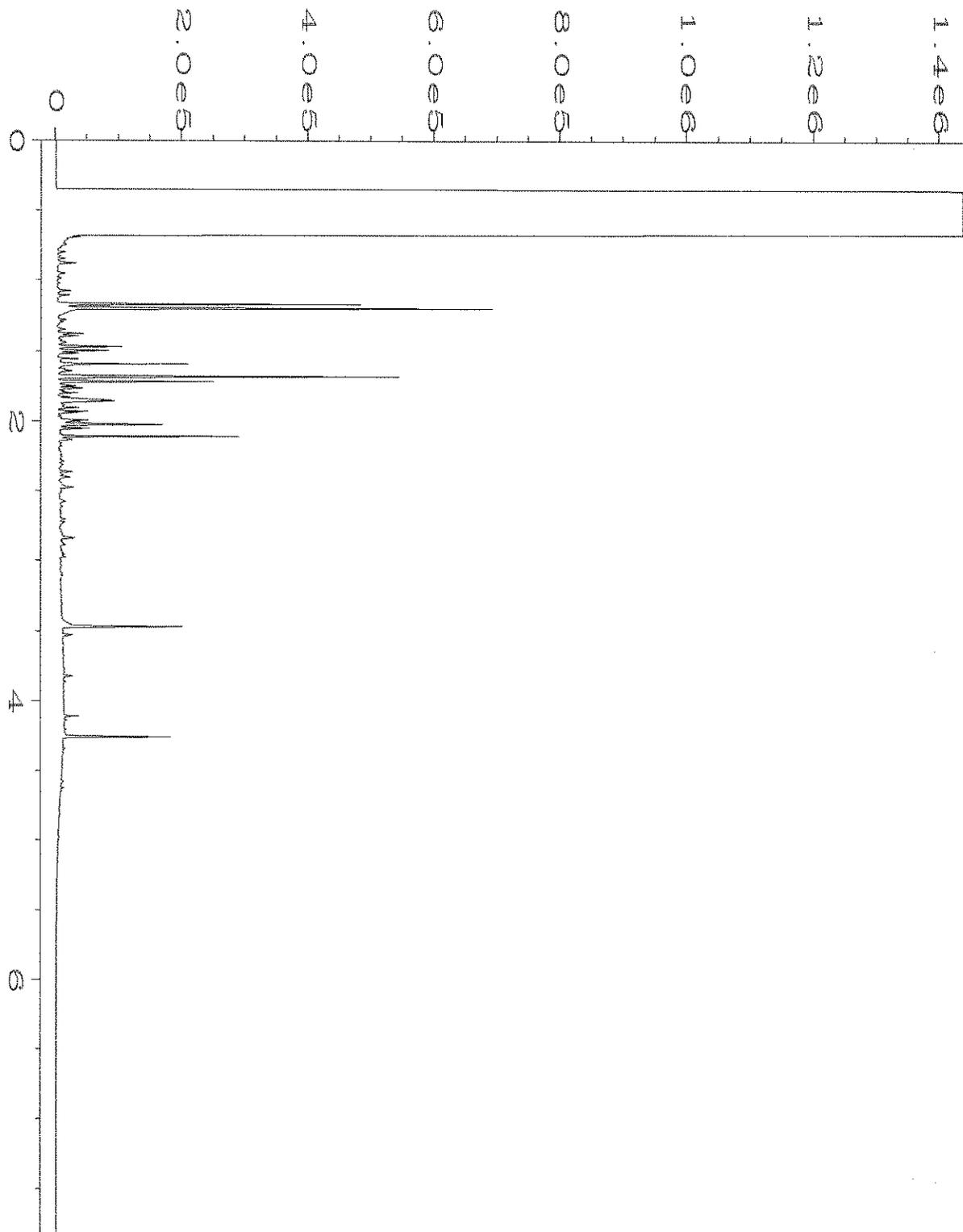
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Operator	: TL	Vial Number	: 10
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-05	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 07:54 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:39 AM		



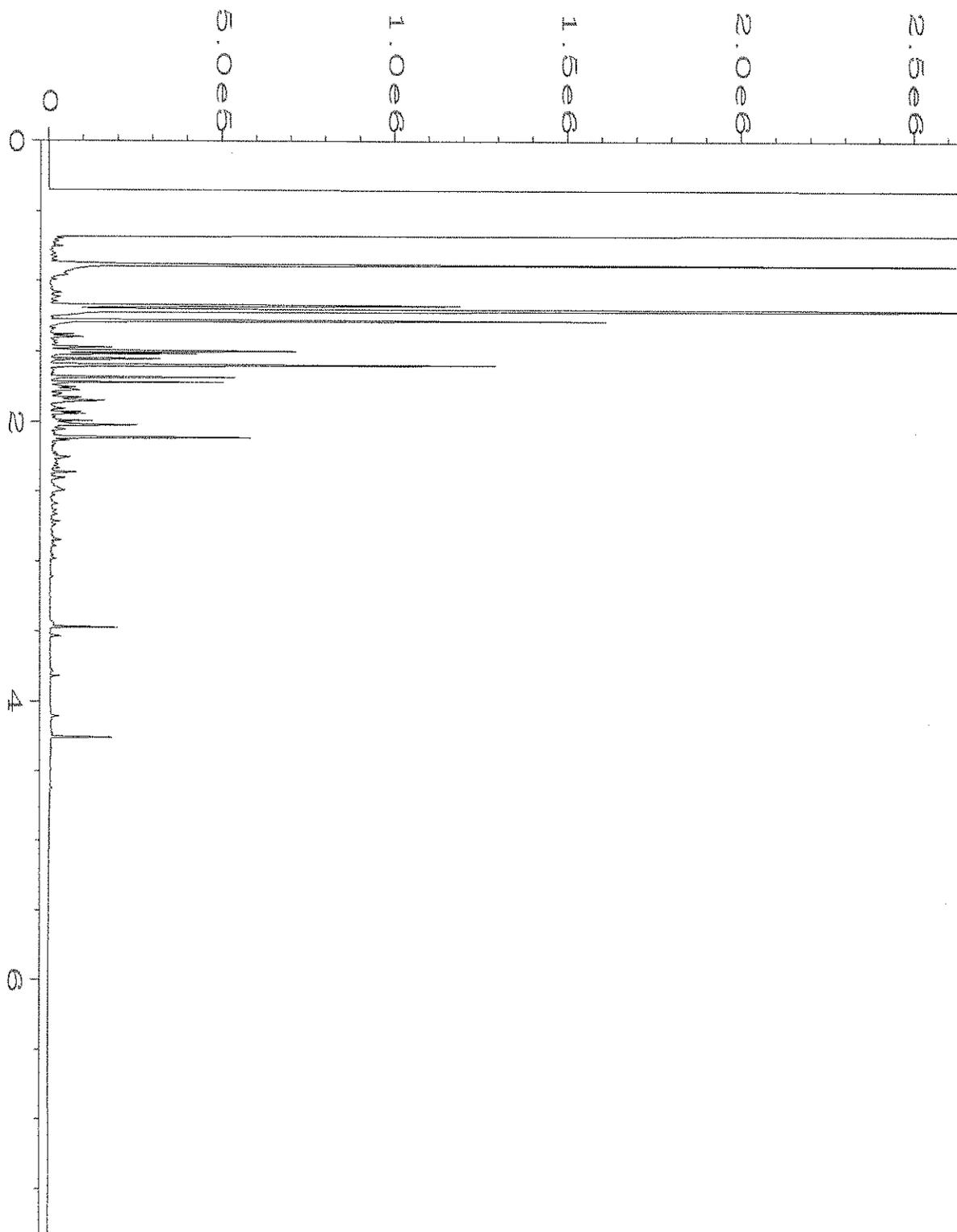
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Operator	: TL	Vial Number	: 11
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-06	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 08:07 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:39 AM		



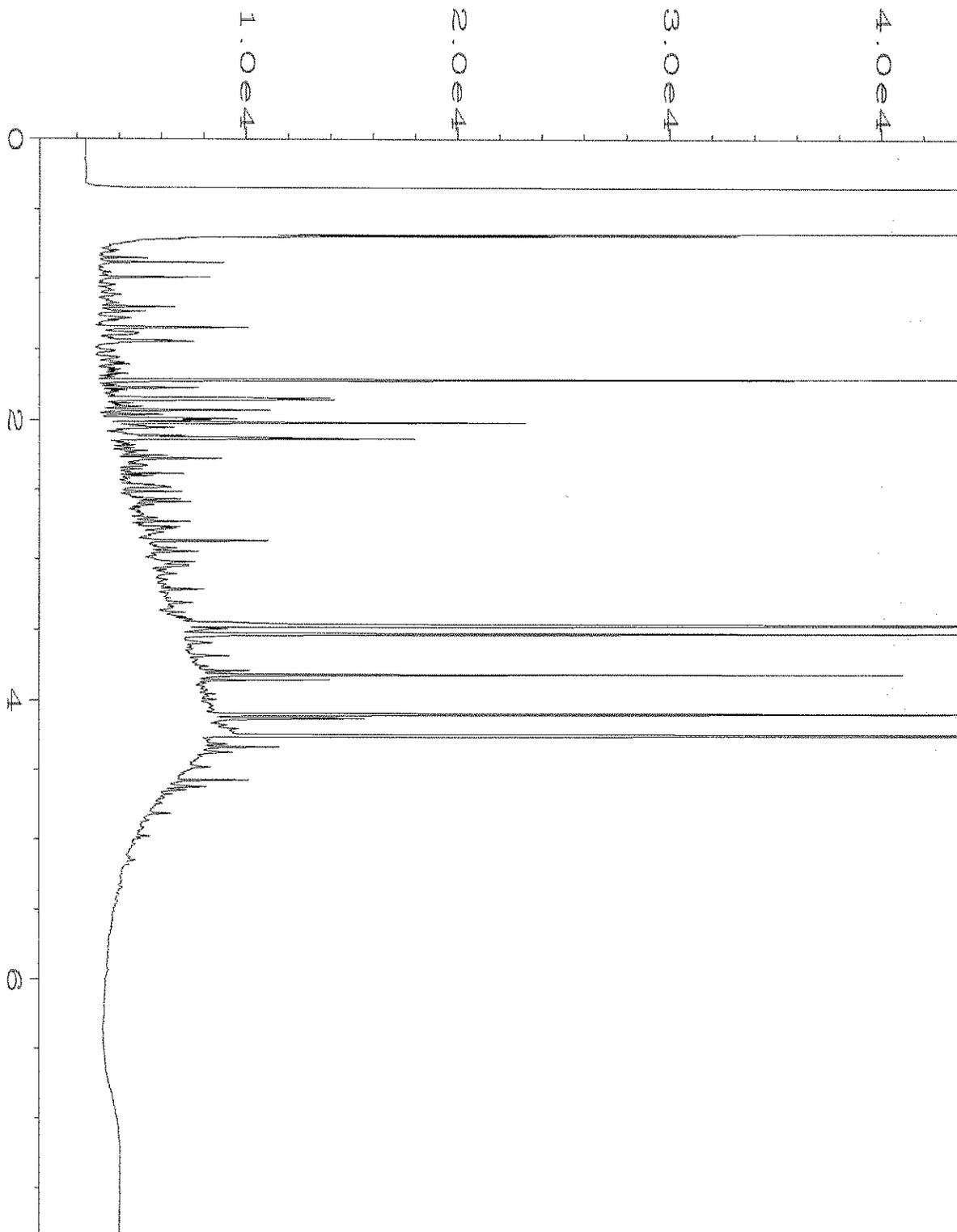
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\012F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 12
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-07	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 08:20 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:40 AM		



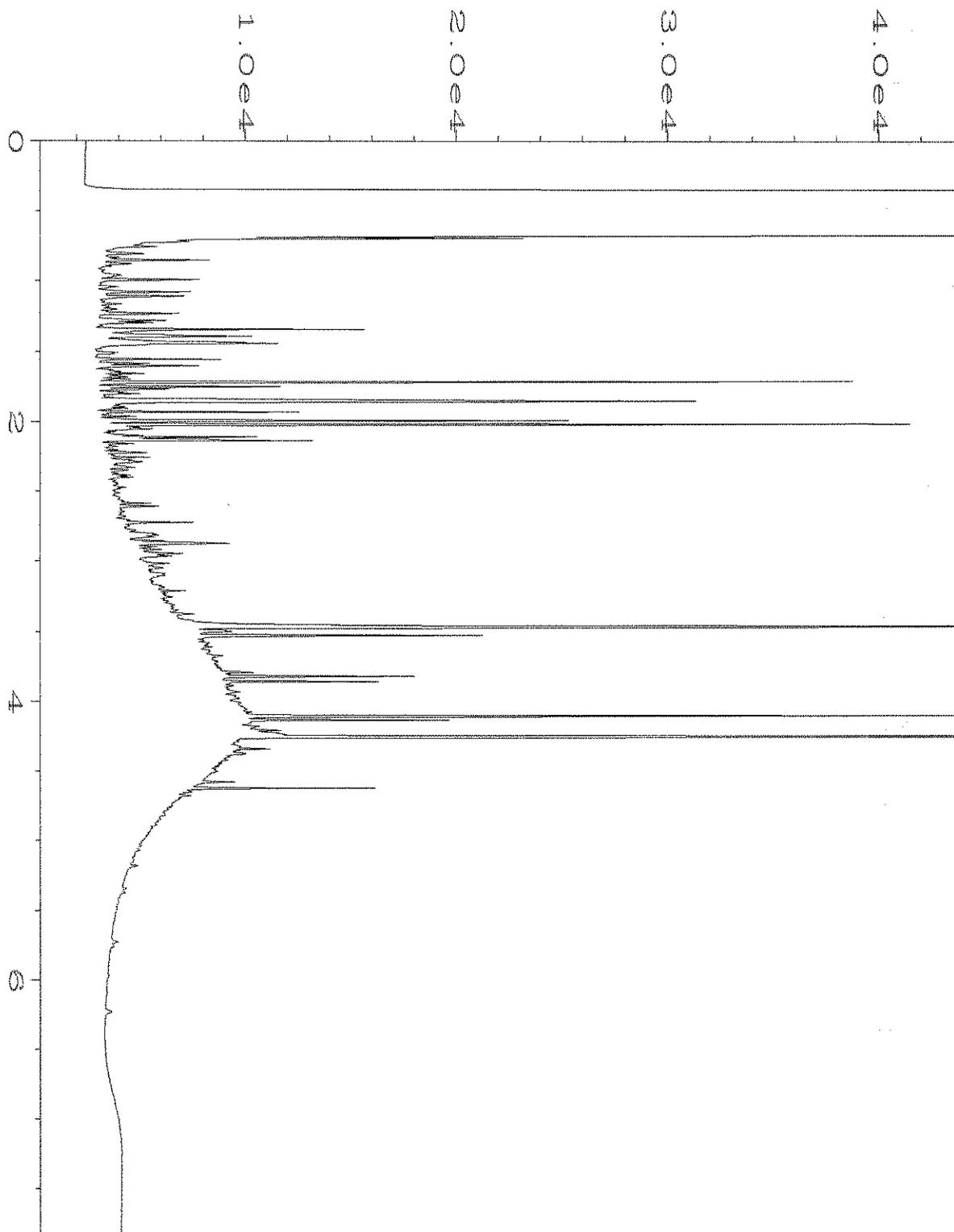
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\013F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 13
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-08	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 08:32 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:40 AM		



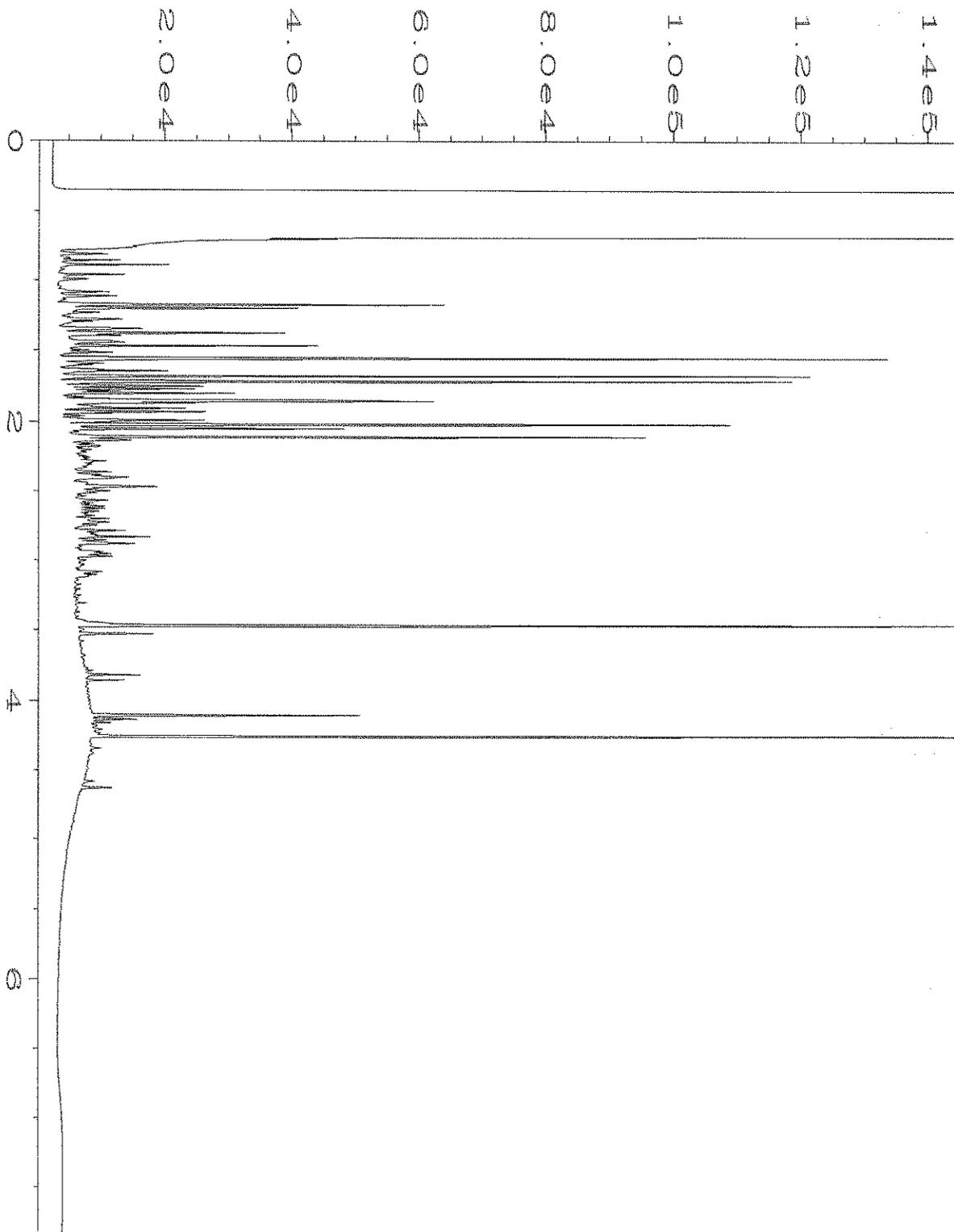
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\014F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 14
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-09	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 08:57 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:50 AM		



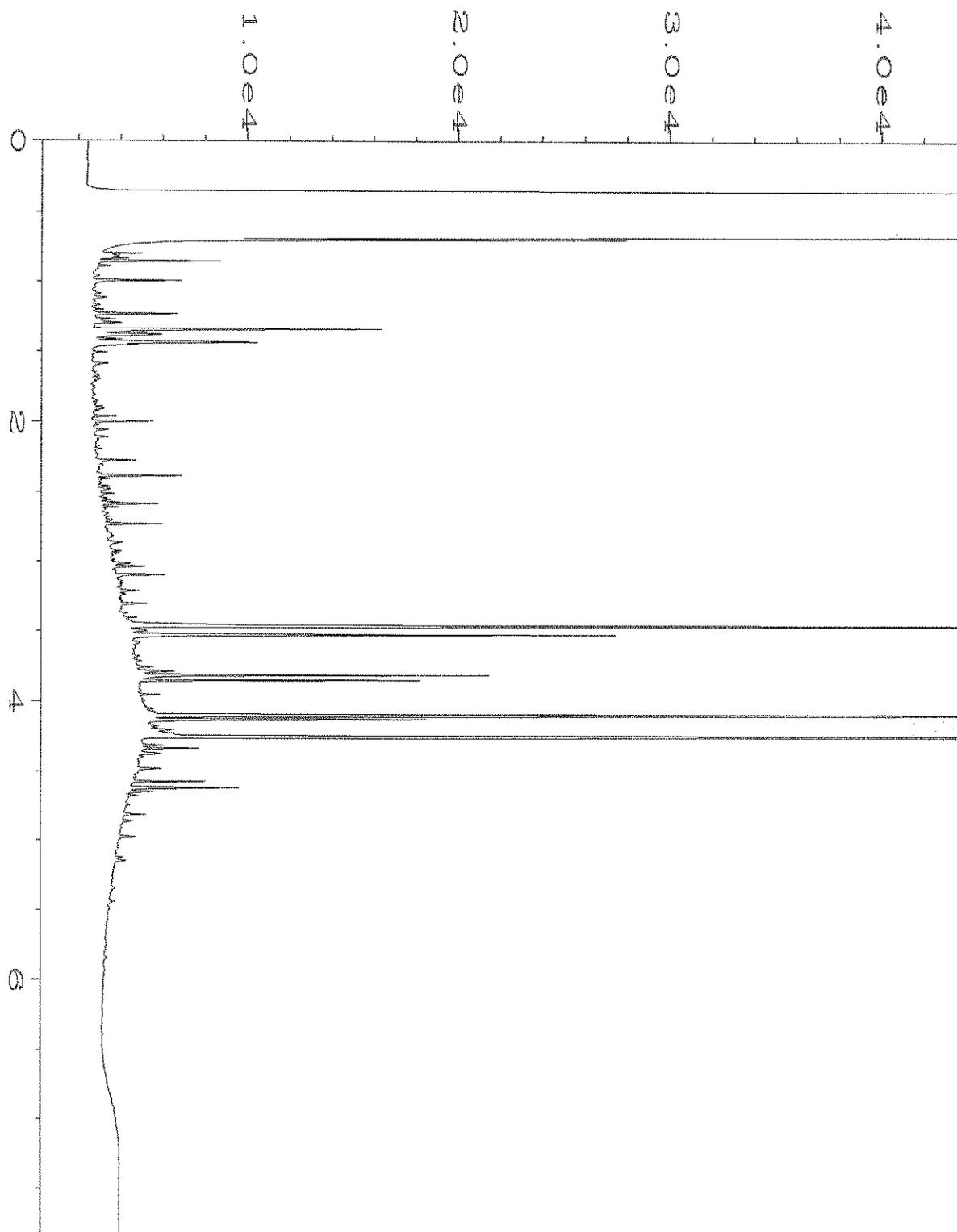
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\015F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 15
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-10	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 09:10 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:50 AM		



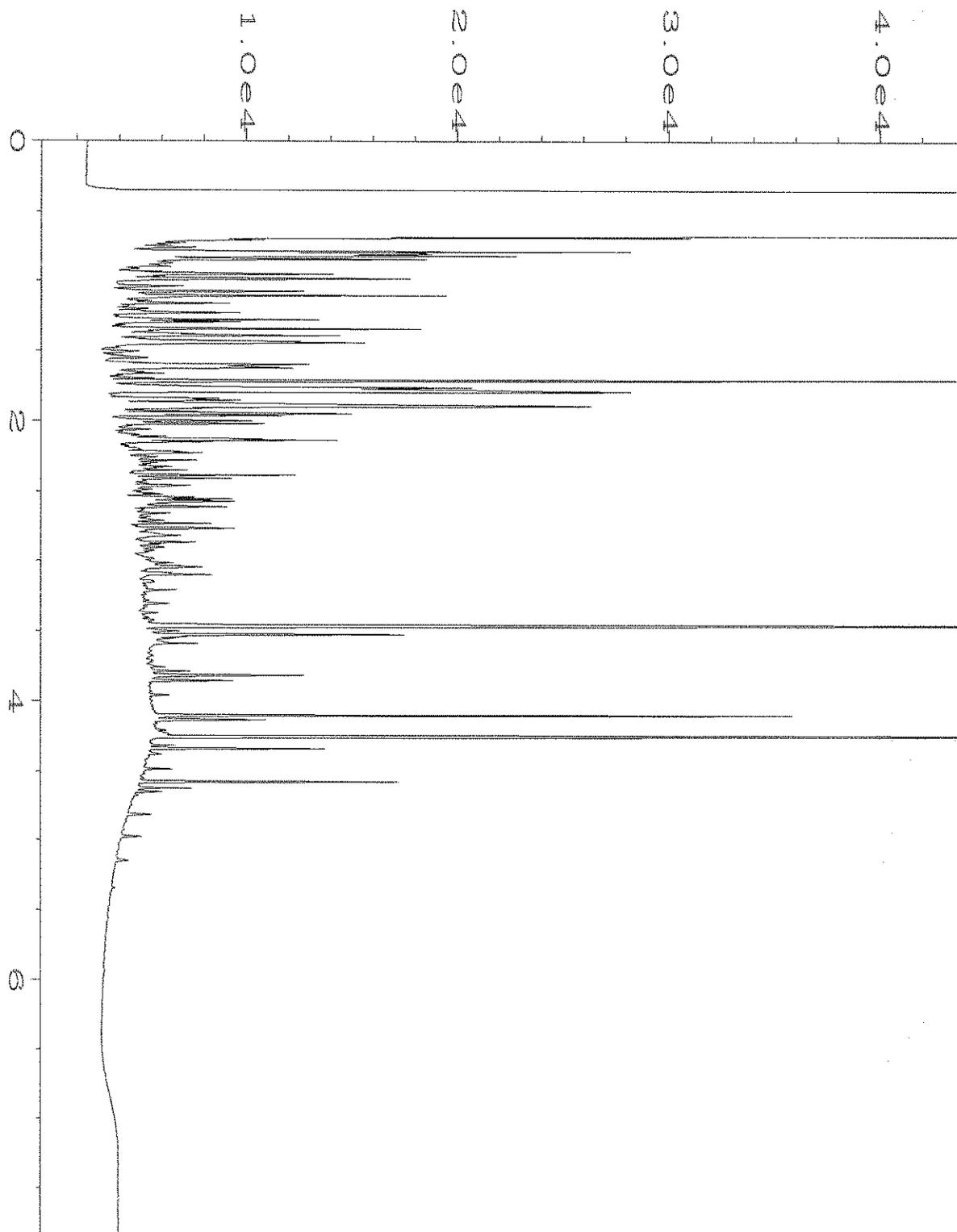
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\016F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 16
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-11	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 09:22 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:50 AM		



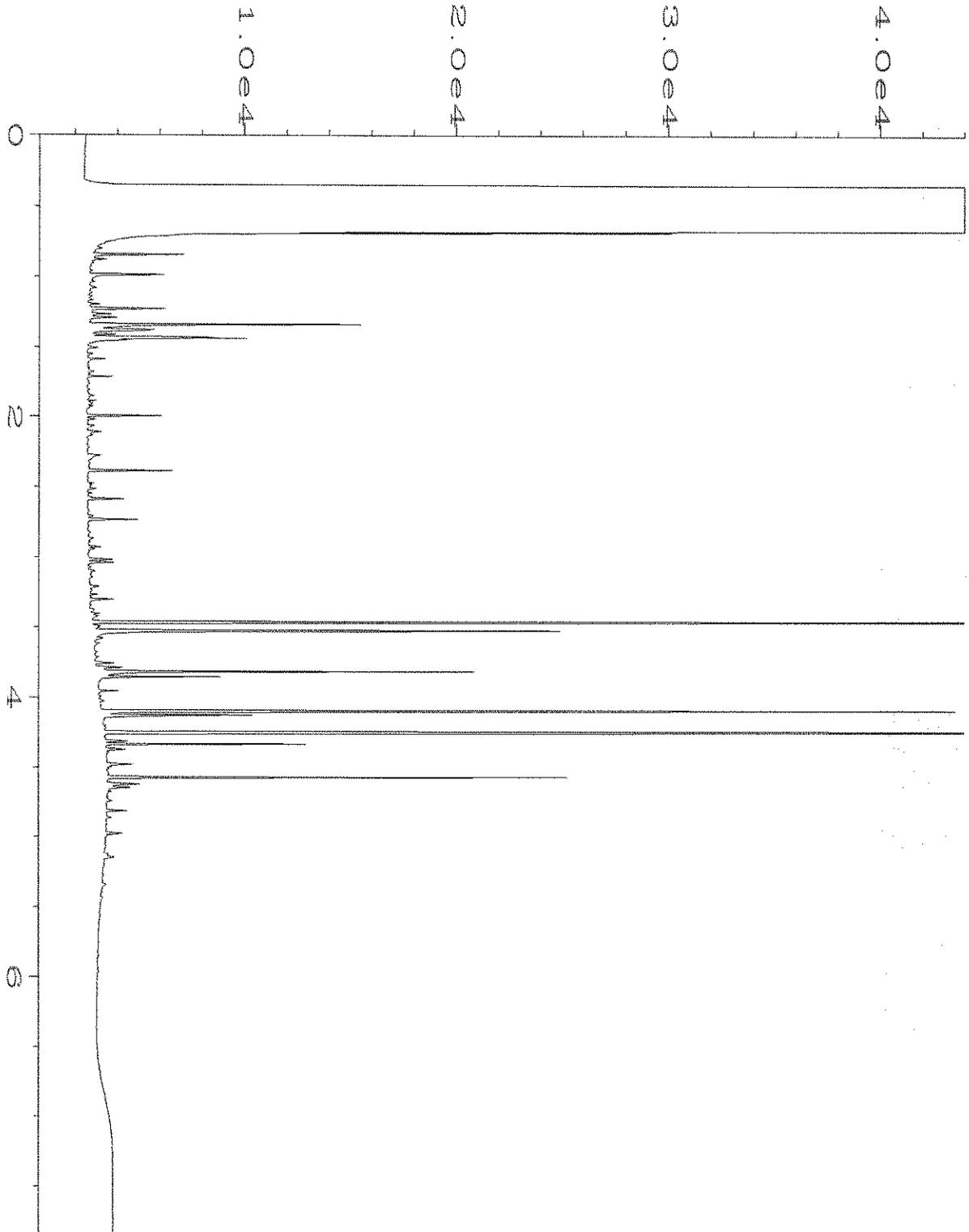
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\017F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 17
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-12	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 09:35 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:50 AM		



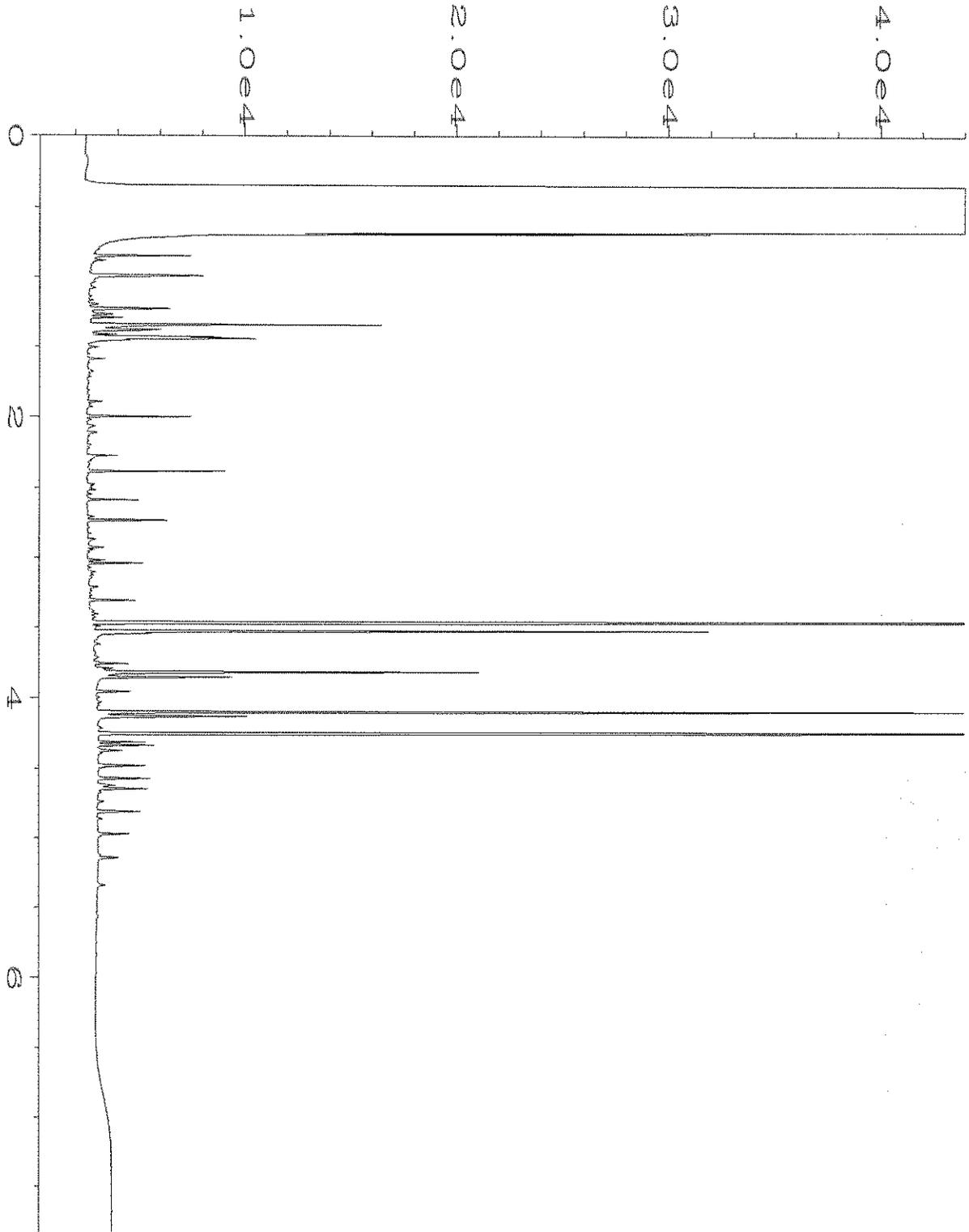
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\018F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 18
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-13	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 09:48 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:51 AM		



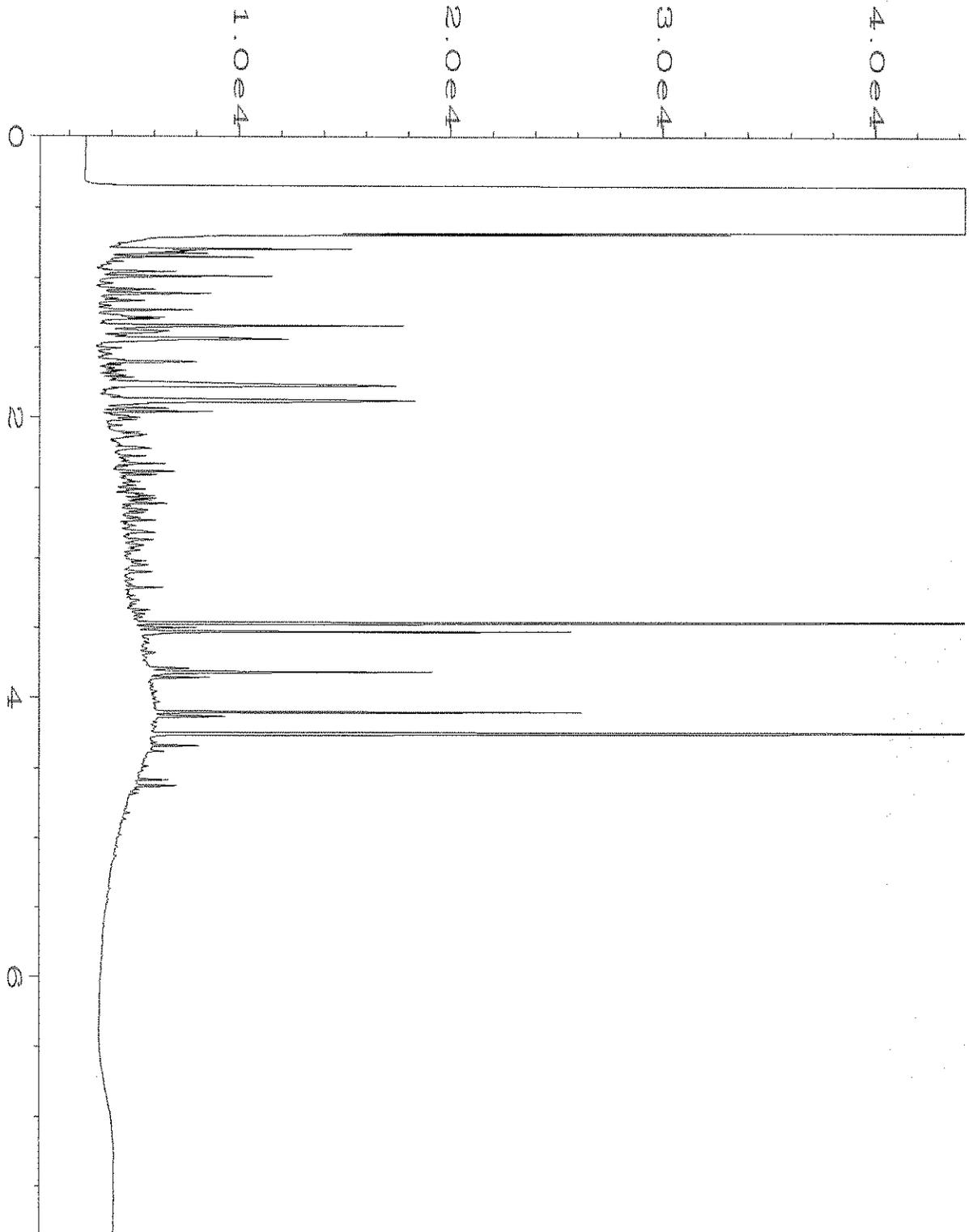
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\019F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 19
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-14	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 10:00 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:51 AM		



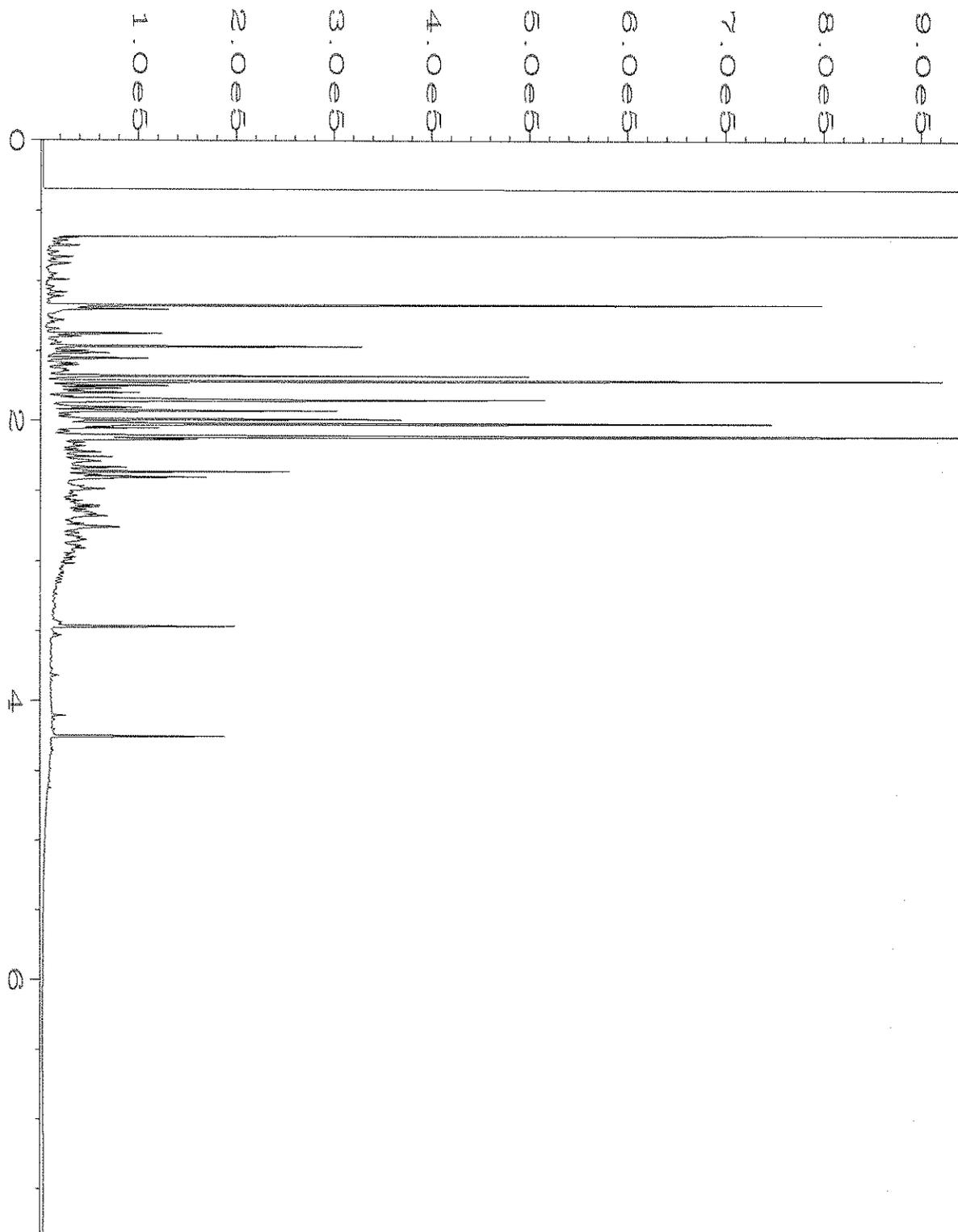
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\020F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 20
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-15	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 10:13 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:51 AM		



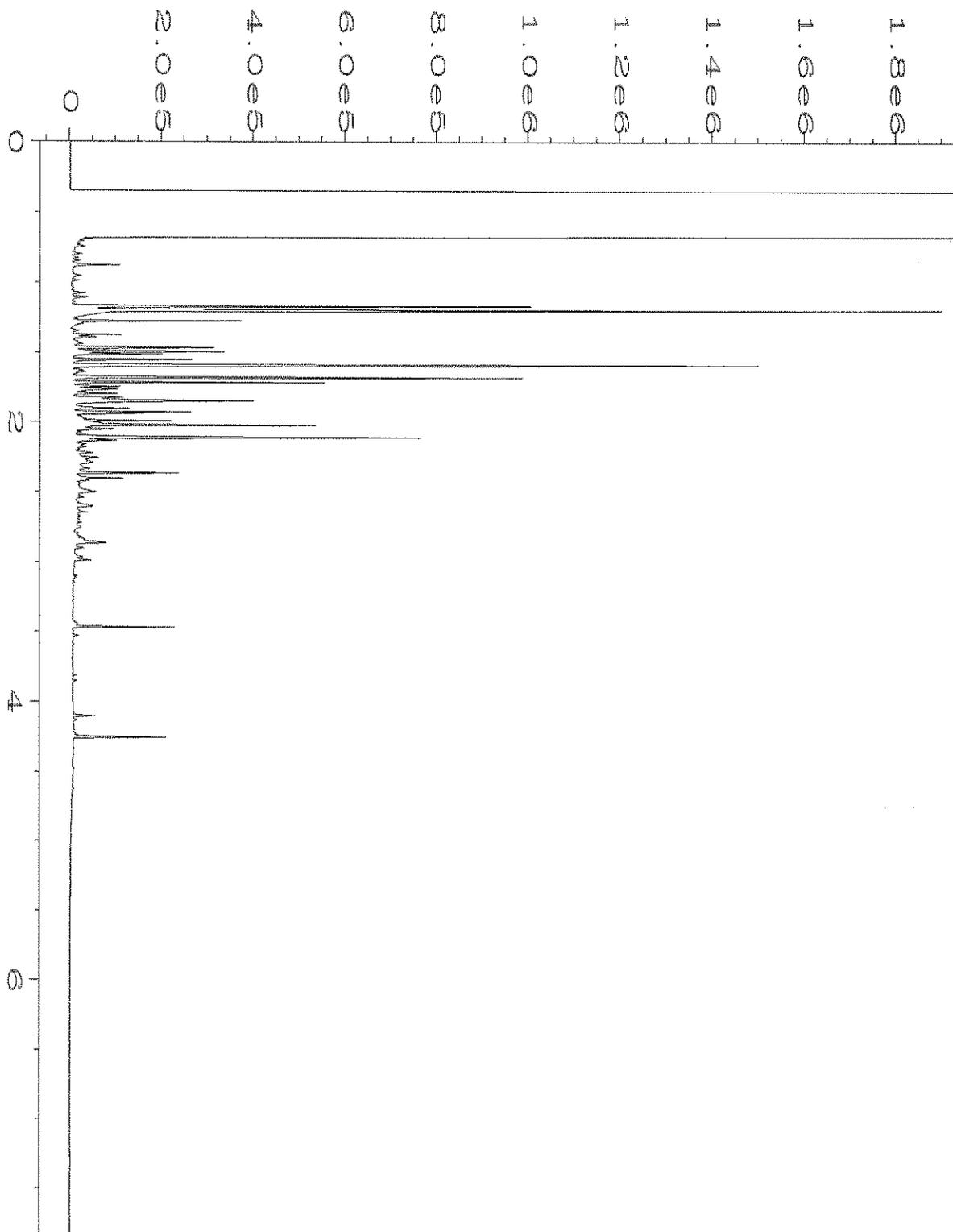
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\021F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 21
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-16	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 10:25 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:51 AM		



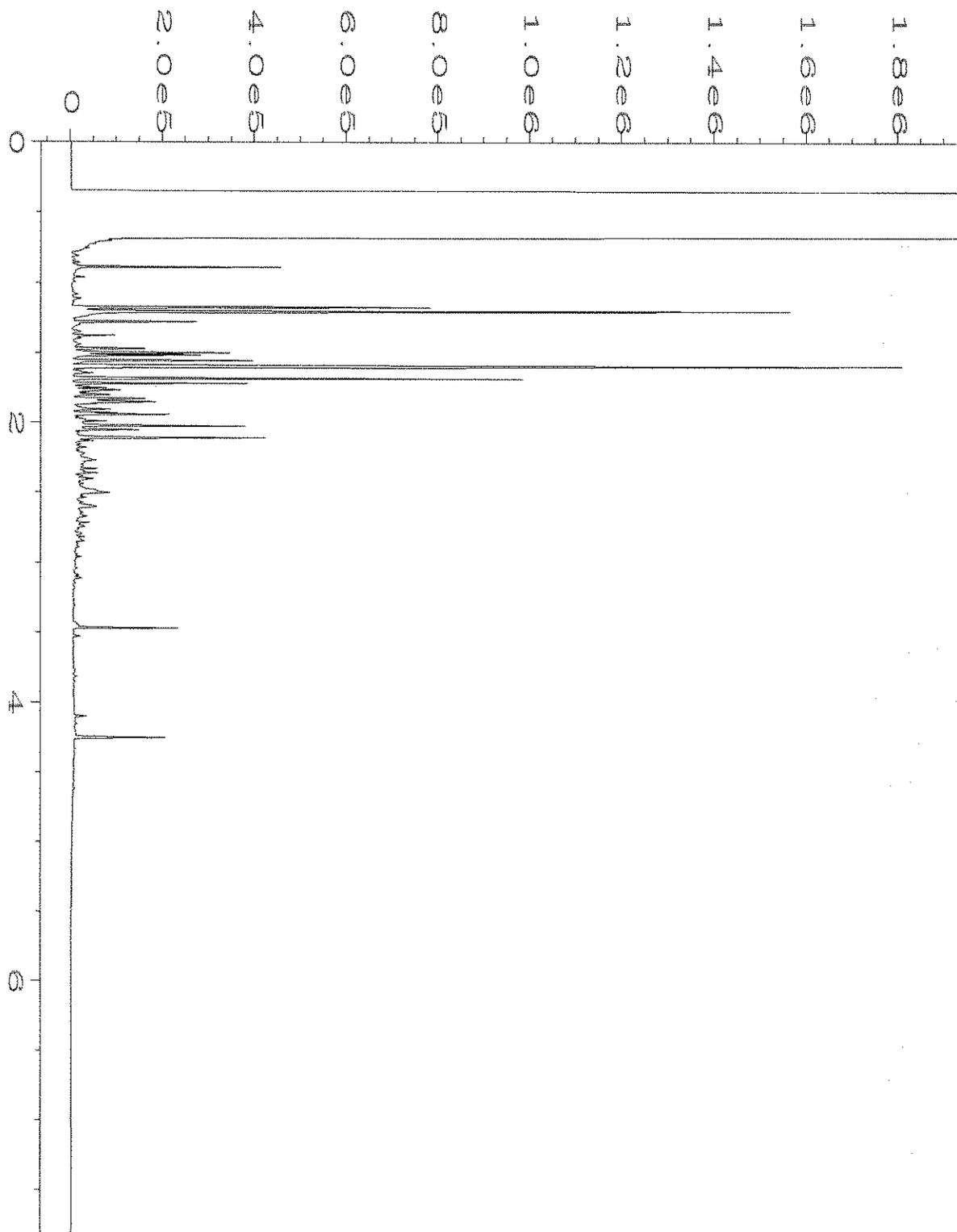
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\022F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 22
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-17	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 02:20 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:51 AM		



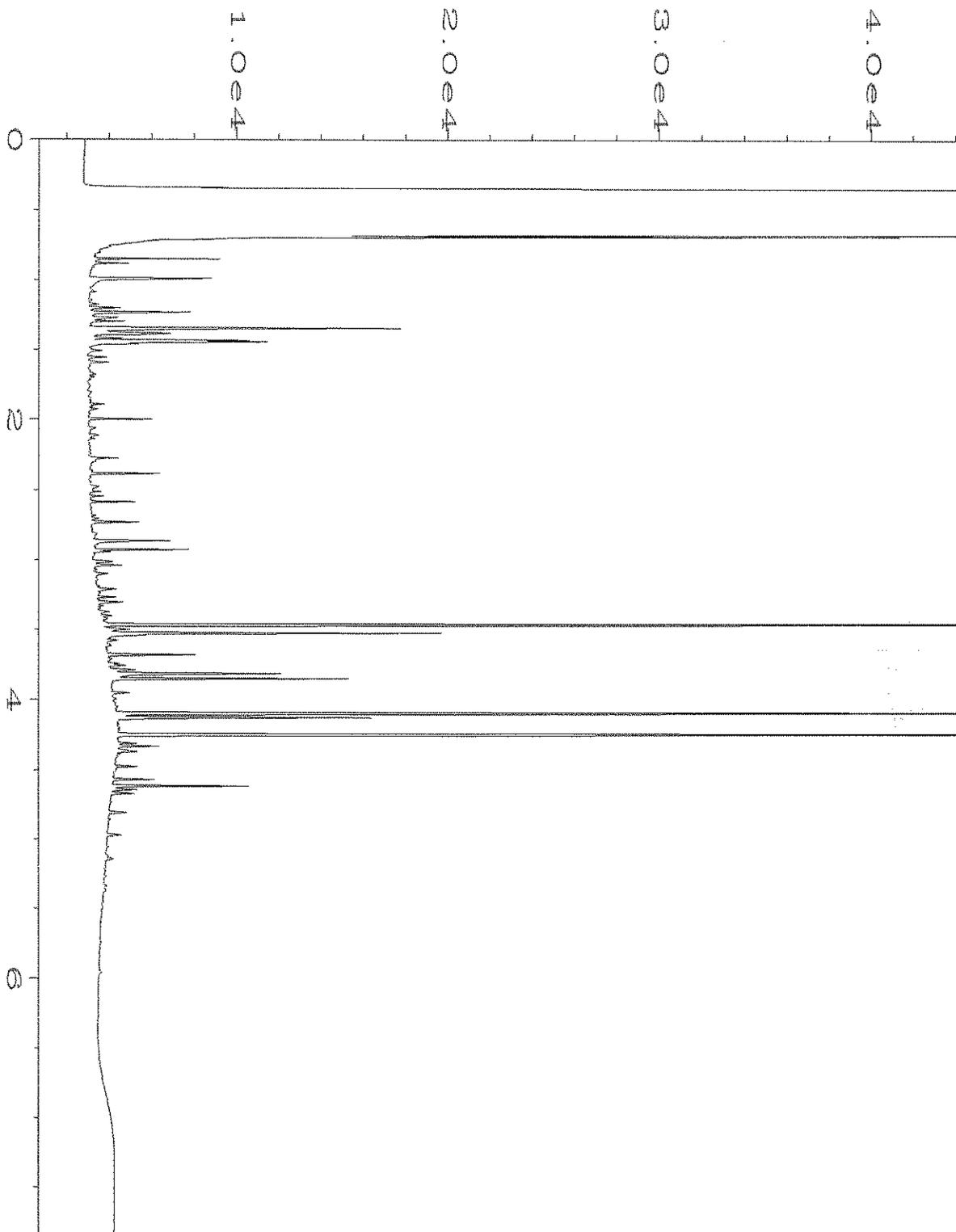
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\023F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 23
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-18	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 02:30 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:51 AM		



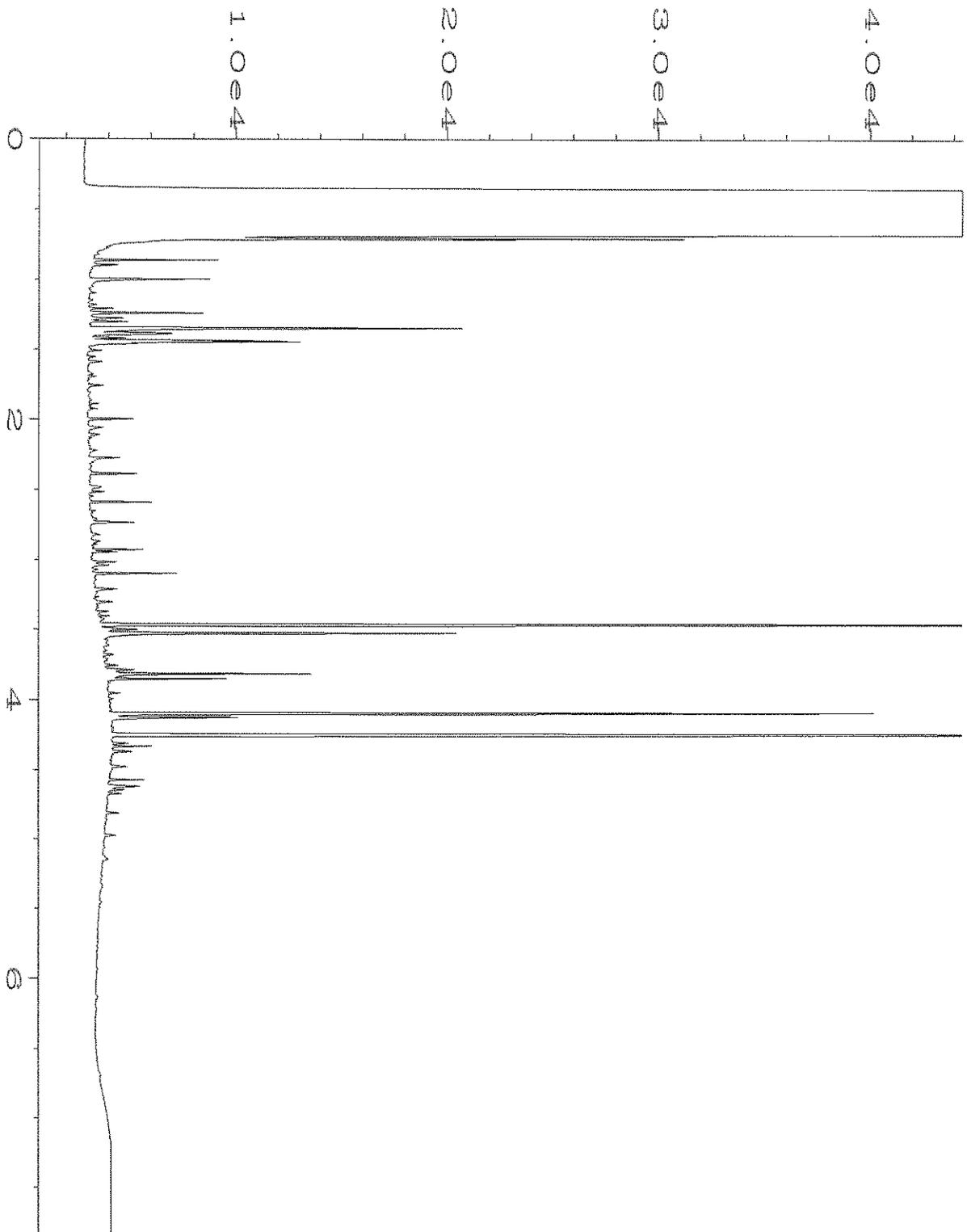
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\024F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 24
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-19	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 02:43 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:52 AM		



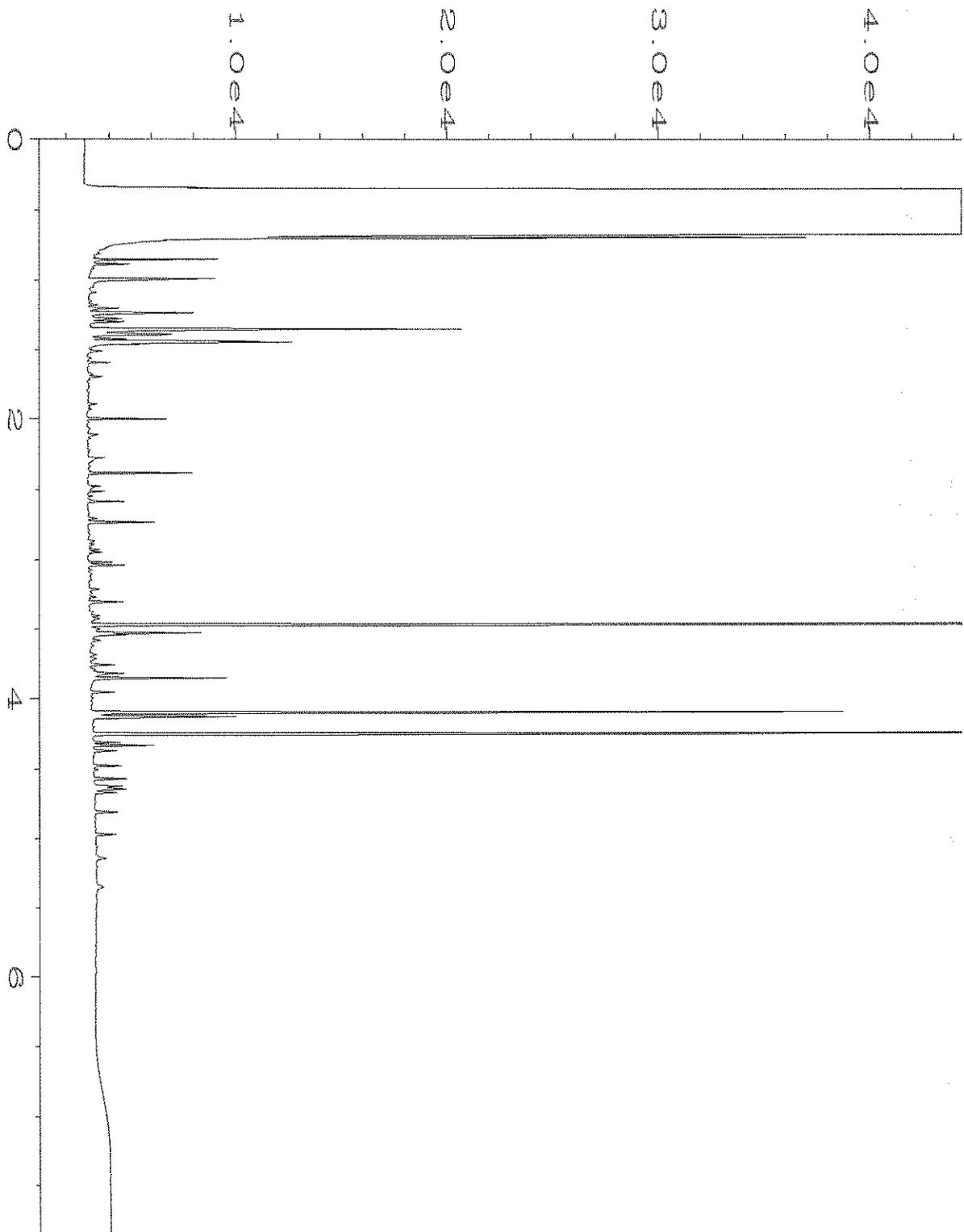
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\025F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 25
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-20	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 02:56 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:52 AM		



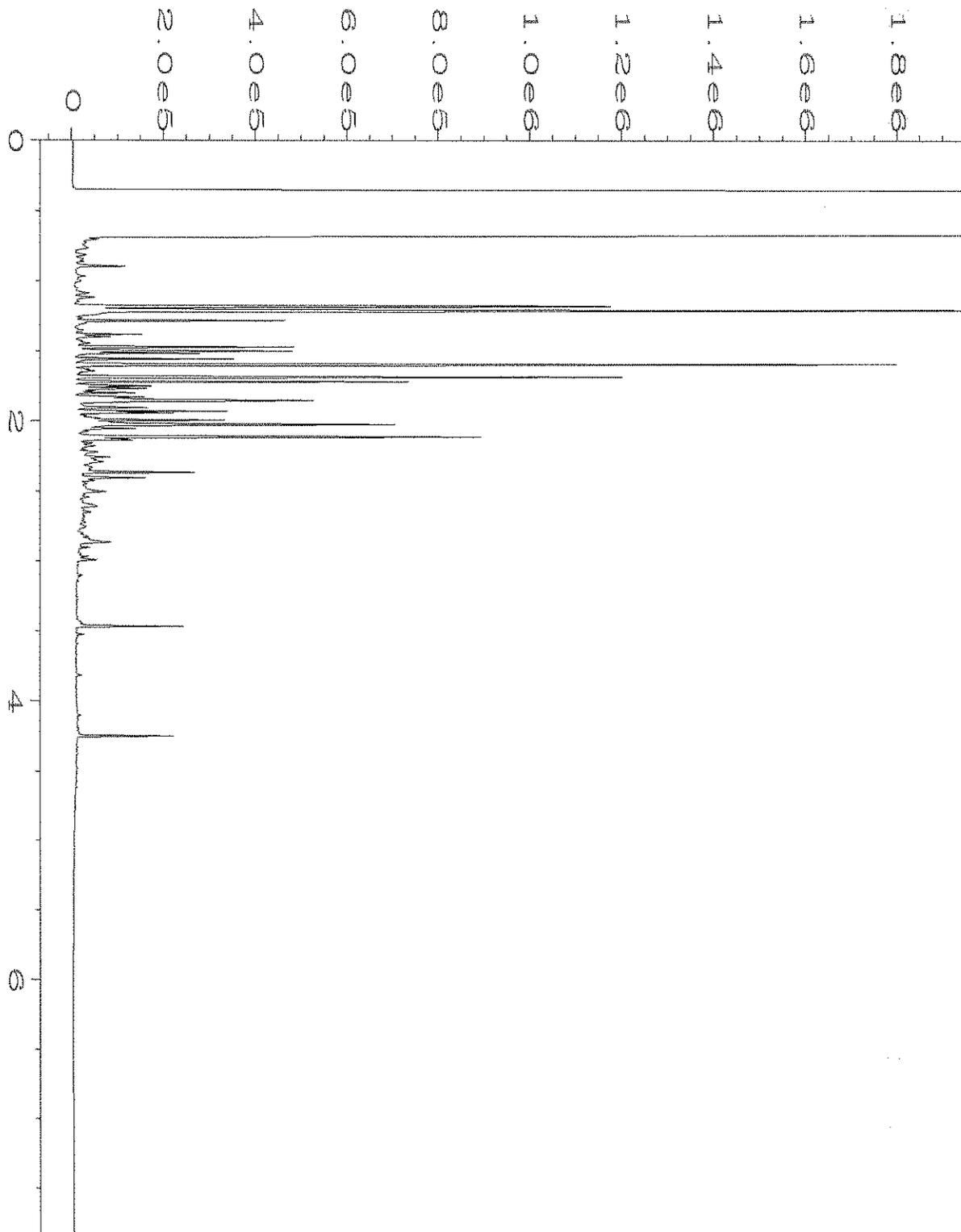
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\026F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 26
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-21	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 03:08 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:53 AM		



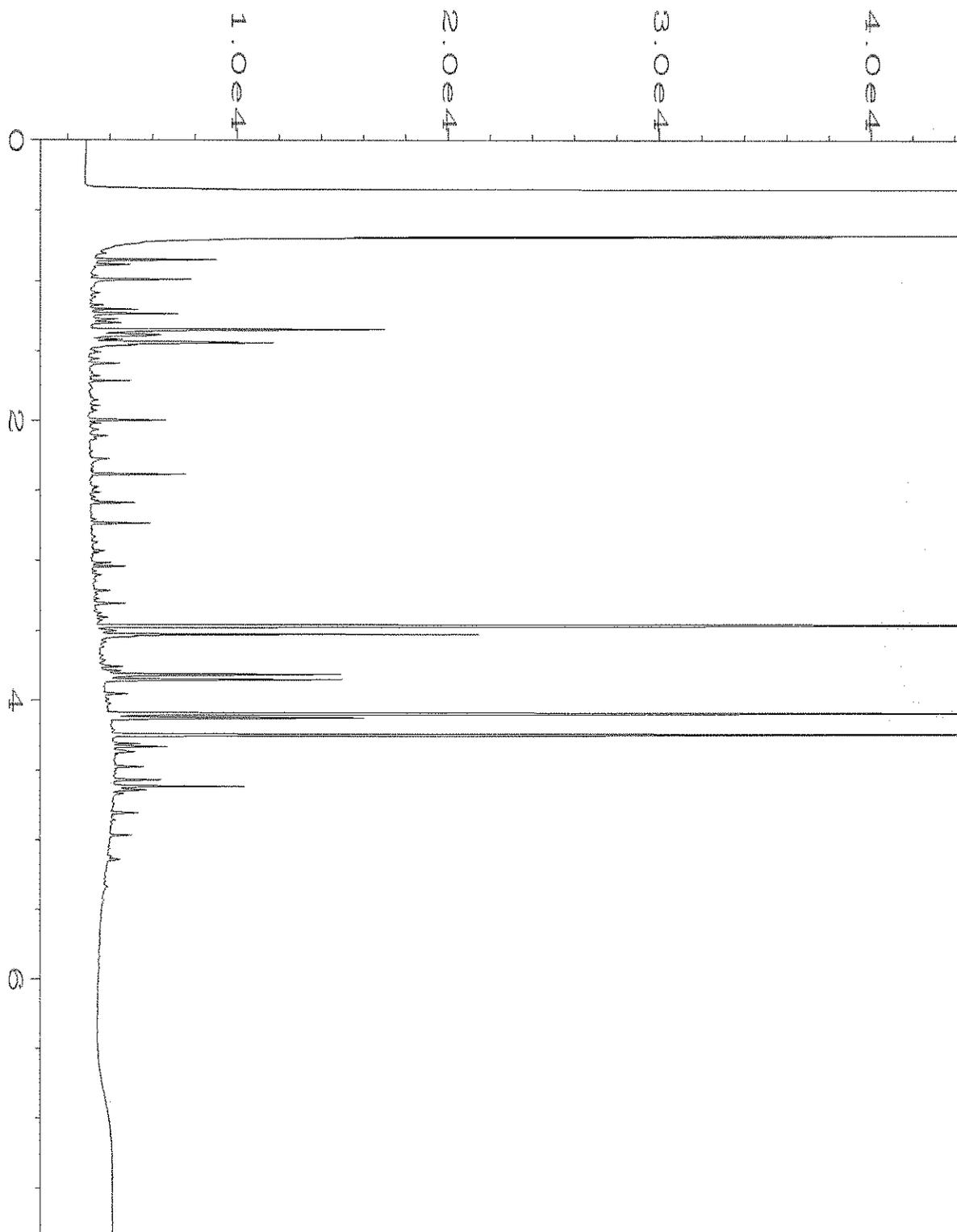
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\027F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 27
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-22	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 03:21 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:53 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-21-20\028F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 28
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-23	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 03:34 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:53 AM		



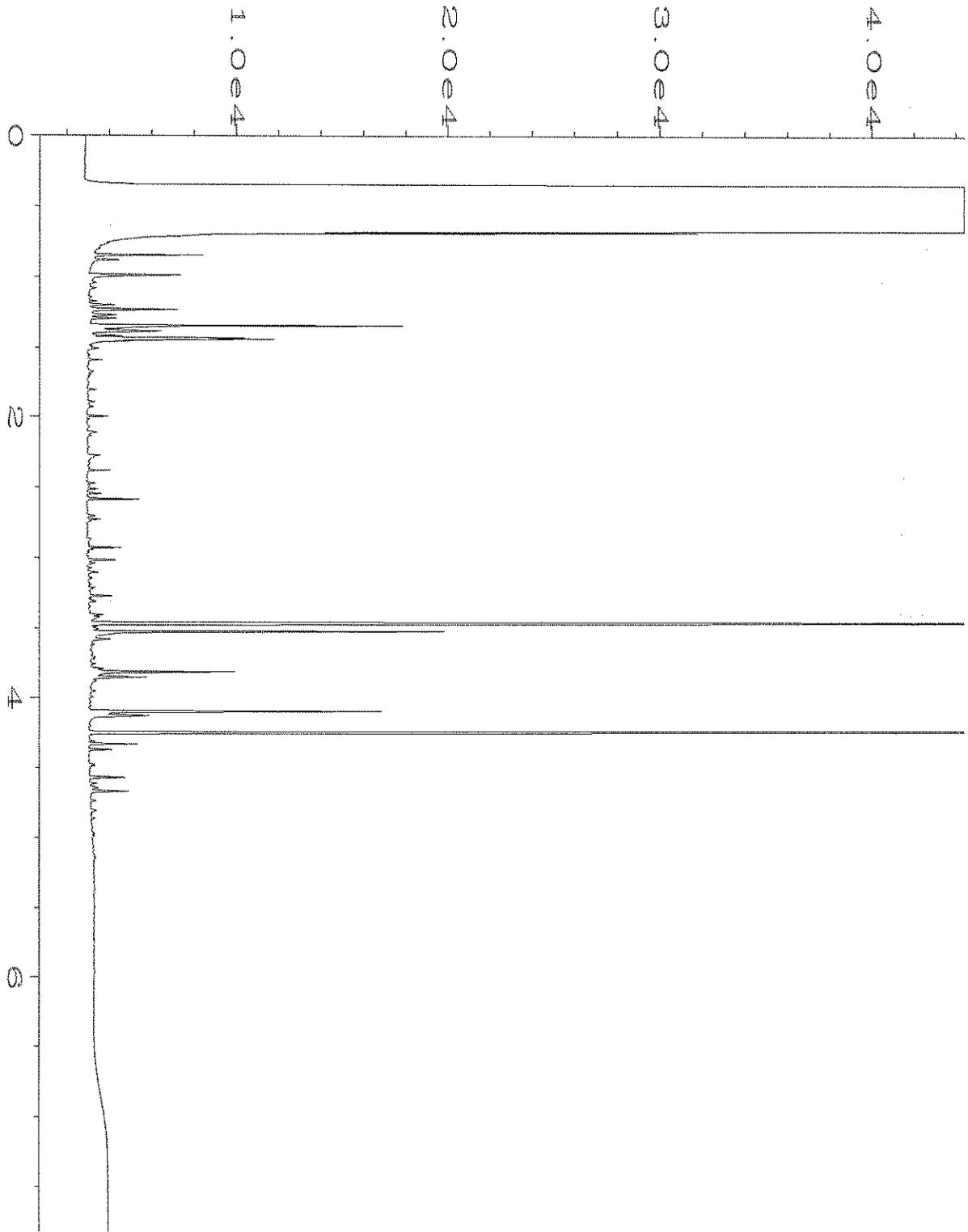
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\029F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 29
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-24	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 03:46 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:53 AM		



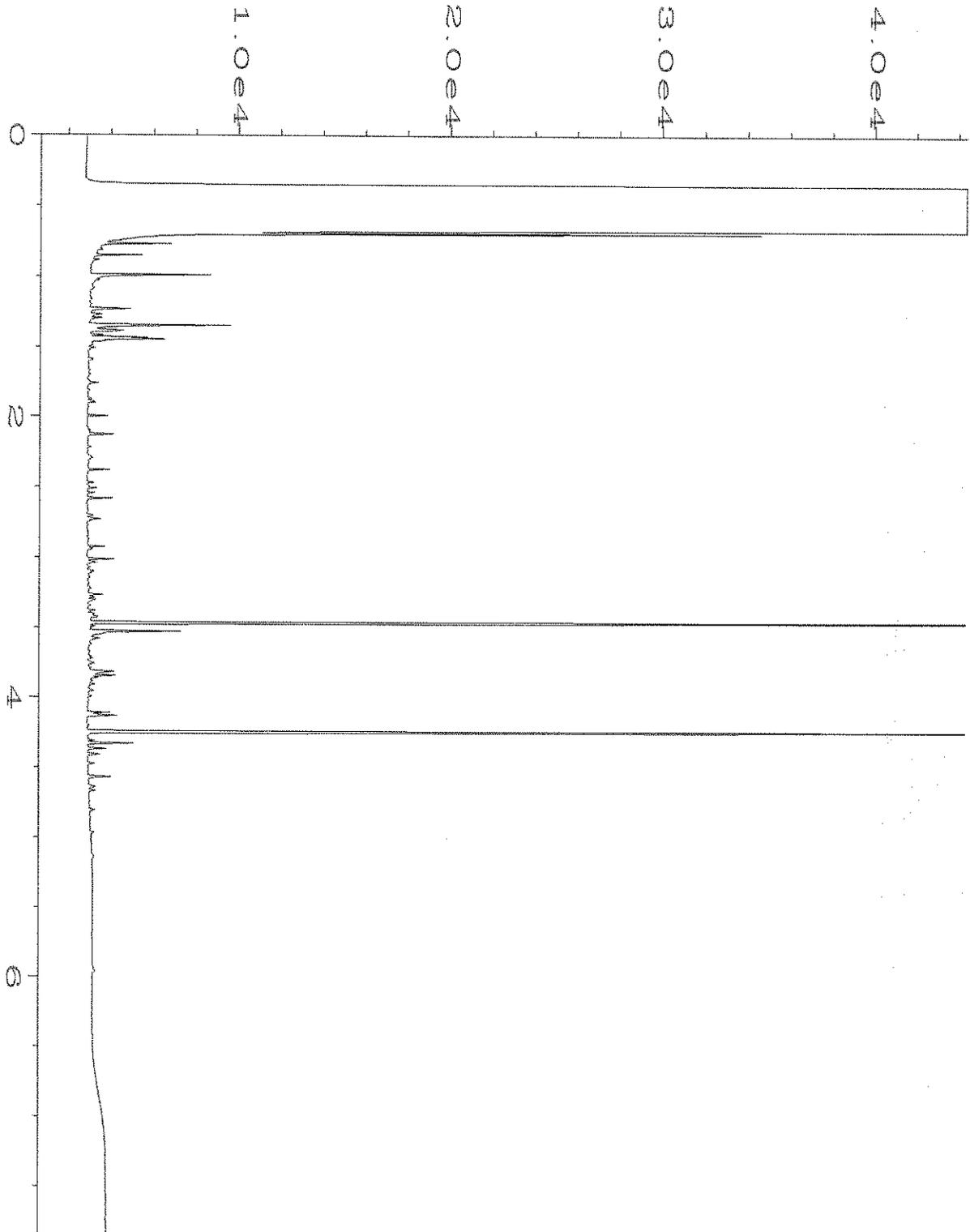
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\030F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 30
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-25	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 03:59 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:53 AM		



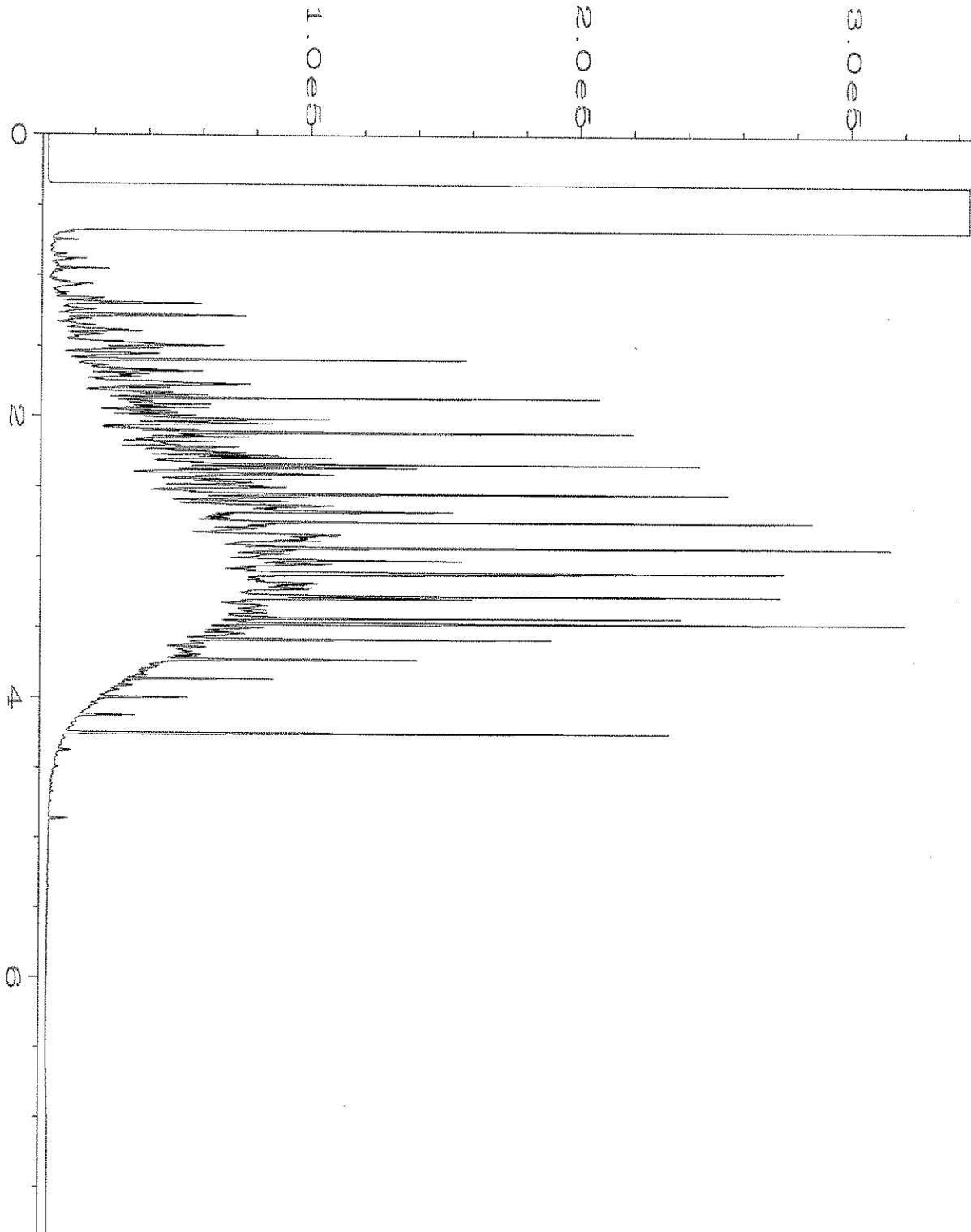
Data File Name	: C:\HPCHEM\4\DATA\08-21-20\031F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 31
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-26	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 04:12 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:54 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-21-20\032F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 32
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 008261-27	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 04:24 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:54 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-21-20\033F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 33
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 00-1893 mb	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 05:07 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:54 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-21-20\005F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 60-170B	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Aug 20 02:03 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Aug 20 10:54 AM		

008261

SAMPLE CHAIN OF CUSTODY ME 08/18/20

Page # 1 of 3

Project To: Andrews Yonkers/Alam Center

Company: Aspect Consulting

Address: 710 2nd Ave, Ste. 550

City, State, ZIP: Seattle, WA 98104

Phone: (206) 413-5711 Email: axw@aspect.com

SAMPLERS (signature) Rachel

PROJECT NAME: Texaco Site/land

REMARKS: 180357

PO #

INVOICE TO: AP

TURNAROUND TIME: 1 day

Standard turnaround  RUSH  Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL:  Archive samples  Other \_\_\_\_\_ Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082		
MW-1-081820	01A-6	8/18/20	1450	WL	7	X	X						X	
MW-2-081720	02	8/17/20	1425	WL	1									
MW-4-081820	03	8/18/20	1415		1									
MW-6-081720	04	8/17/20	1225		1									
MW-7-081720	05	↓	1135		1									
MW-8-081820	06	8/18/20	1320		1									
MW-9-081820	07	↓	1215		1									
MW-10-081820	08	↓	1330		1									
MW-11-081720	09	8/17/20	1132		1									
MW-12-081720	10	↓	1330		1									

SIGNATURE		PRINT NAME		COMPANY		DATE		TIME	
Relinquished by: <u>Rachel</u>		Rachel Comare II		Aspect		8/18/2020		1:00	
Received by: <u>PH</u>		KHOI Hoang		FBI		8/18/2016		00	
Relinquished by:									
Received by:						Samples received at <u>4:00</u>			

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

008261

SAMPLE CHAIN OF CUSTODY ME 08/18/20

Page # 2 of 3

Report To: Andrea Yokotaki / Adam Carter

Company: Aspect Consulting

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle WA 98104

Phone: 206 413 5411 Email: ayokotaki@aspect.com

SAMPLERS (signature)	<u>[Signature]</u>	PO #	<u>180357</u>
PROJECT NAME	<u>Texaco Stevedore</u>	INVOICE TO	<u>APD</u>
REMARKS	<u>Project specific RI? - Yes / <input checked="" type="checkbox"/> No</u>		

TURNAROUND TIME	<u>Standard turnaround</u>
SAMPLE DISPOSAL	<input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH Rush charges authorized by: _____ <input type="checkbox"/> Archive samples <input type="checkbox"/> Other Default: Dispose after 30 days

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED						Notes			
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270		PCBs EPA 8082		
MU-13-081720	11A-6	8/17/20	1435	WL	7	X	X								
MU-14-081820	12	8/18/20	1220		1										
MU-16-081720	13	8/17/20	0900		1										
MU-17-081720	14	↓	0905		1										
MU-18-081820	15	8/18/20	0910		1										
MU-14-081820	16	↓	1620		1										
MU-20-081720	17	8/17/20	1030		1										
MU-21-081720	18	↓	1238		1										
MU-22-081720	19	↓	1340		1										
MU-23-081820	20	8/18/20	1115		1										

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
<u>[Signature]</u>		Rachel Cornwell		Aspect		8/18/20	1600
Received by: <u>WV</u>		khai Hoang		FBI		8/18/20	1600
Relinquished by: _____		_____		_____		_____	_____
Received by: _____		_____		_____		_____	_____

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Samples received at 4:00

008261

SAMPLE CHAIN OF CUSTODY

ME 08/18/20

Page # 3 of 3

Report To: Andrew Yoshitski / Aaron Lathan

Company: Aspect Environmental

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle, WA 98104

Phone: (206) 413-5411 Email: ayoshitski@aspect.com

SAMPLERS (signature) *Rachel Cornell*

PROJECT NAME: *Toxic Shellfish*

REMARKS: *Project specific RLS? - Yes / No*

PO #: *180357*

INVOICE TO: *ADP*

TURNAROUND TIME

Standard turnaround

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Archive samples

Other \_\_\_\_\_

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082			
MU-24-081820	21A-4	8/18/20	0915	LL	7	X	X						X		
MU-25-081820	22	↓	0900	↓	↓	↓	↓								
MU-26-081820	23	↓	0900	↓	↓	↓	↓								
DUP-01-081720	24	8/17/20	-	↓	↓	↓	↓								
DUP-02-081820	25	8/18/20	-	↓	↓	↓	↓								
RS-01-081720	26	8/17/20	1450	AQ	↓	↓	↓								
RS-02-081820	27A-6	8/18/20	1500	AQ	↓	↓	↓								
Trip Blank	28A-D	-	-	AQ	↓	↓	↓								

Friedman & Bryya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Relinquished by: <i>Rachel Cornell</i>	<i>Rachel Cornell</i>	Rachel Cornell		Aspect	8/18/20	1600	
Received by: <i>WV</i>	<i>WV</i>	Khai Hoang		FBI	8/18/20	1600	
Relinquished by:							
Received by:				Samples received at <i>4</i> o'clock			

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

September 4, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on August 20, 2020 from the Texaco Strickland 6808 196th St SW Lynwood, WA PO 180357, F&BI 008318 project. There are 26 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0904R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 20, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 6808 196th St SW Lynwood, WA PO 180357, F&BI 008318 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
008318 -01	SVS-01-082020
008318 -02	SVS-02-082020
008318 -03	GP-01-082020
008318 -04	GP-02-082020
008318 -05	GP-03-082020
008318 -06	GP-04-082020
008318 -07	GP-DUP-082020
008318 -08	Trip Blank

Samples SVS-01-082020, SVS-02-082020, GP-01-082020, GP-02-082020, GP-03-082020, and GP-04-082020 were sent to Fremont Analytical for carbon dioxide, methane, and oxygen analyses. The report is enclosed.

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

The APH EC5-8 aliphatics concentration in samples GP-03-082020 and GP-DUP-082020 exceeded the calibration range of the instrument. The samples were diluted and reanalyzed. Both data sets were reported.

The sample Trip Blank was prepared at the laboratory. The presence of low level laboratory solvents were noted in the APH range. The data were qualified accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SVS-01-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-01 1/8.5
Date Analyzed:	08/28/20	Data File:	082715.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	4,100
APH EC9-12 aliphatics	6,700
APH EC9-10 aromatics	<210

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SVS-02-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-02 1/3.4
Date Analyzed:	08/28/20	Data File:	082716.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	750
APH EC9-12 aliphatics	670
APH EC9-10 aromatics	<85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-01-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-03 1/3.4
Date Analyzed:	08/28/20	Data File:	082717.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	580
APH EC9-12 aliphatics	680
APH EC9-10 aromatics	<85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-02-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-04 1/3.3
Date Analyzed:	08/28/20	Data File:	082718.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	630
APH EC9-12 aliphatics	890
APH EC9-10 aromatics	<82

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/20/20	Lab ID:	008318-05 1/8.8
Date Analyzed:	08/28/20	Data File:	082719.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	107	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	11,000 ve
APH EC9-12 aliphatics	2,200
APH EC9-10 aromatics	220

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/19/20	Lab ID:	008318-05 1/44
Date Analyzed:	09/02/20	Data File:	090213.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130

	Concentration
Compounds:	ug/m3
APH EC5-8 aliphatics	13,000
APH EC9-12 aliphatics	3,300
APH EC9-10 aromatics	<1,100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-04-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-06 1/3.6
Date Analyzed:	08/28/20	Data File:	082720.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	650
APH EC9-12 aliphatics	470
APH EC9-10 aromatics	<90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-DUP-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-07 1/8.8
Date Analyzed:	08/28/20	Data File:	082721.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration
	ug/m3

APH EC5-8 aliphatics	12,000 ve
APH EC9-12 aliphatics	2,300
APH EC9-10 aromatics	<220

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-DUP-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/19/20	Lab ID:	008318-07 1/44
Date Analyzed:	09/02/20	Data File:	090214.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	15,000
APH EC9-12 aliphatics	3,500
APH EC9-10 aromatics	<1,100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-08 1/2.8
Date Analyzed:	08/28/20	Data File:	082722.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	390 lc
APH EC9-12 aliphatics	<140
APH EC9-10 aromatics	<70

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	Not Applicable	Lab ID:	00-1933 MB
Date Analyzed:	08/27/20	Data File:	082709.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVS-01-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-01 1/8.5
Date Analyzed:	08/28/20	Data File:	082715.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	17	5.4
Toluene	<160	<42
Ethylbenzene	7.0	1.6
m,p-Xylene	45	10
o-Xylene	12	2.8
Naphthalene	<2.2	<0.42

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVS-02-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-02 1/3.4
Date Analyzed:	08/28/20	Data File:	082716.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	1.8	0.55
Toluene	<64	<17
Ethylbenzene	5.8	1.3
m,p-Xylene	23	5.4
o-Xylene	8.3	1.9
Naphthalene	<0.89	<0.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-01-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-03 1/3.4
Date Analyzed:	08/28/20	Data File:	082717.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<1.1	<0.34
Toluene	<64	<17
Ethylbenzene	<1.5	<0.34
m,p-Xylene	<3	<0.68
o-Xylene	<1.5	<0.34
Naphthalene	<0.89	<0.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-02-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-04 1/3.3
Date Analyzed:	08/28/20	Data File:	082718.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<1.1	<0.33
Toluene	<62	<16
Ethylbenzene	3.1	0.71
m,p-Xylene	12	2.7
o-Xylene	4.7	1.1
Naphthalene	1.2	0.23

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-03-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/20/20	Lab ID:	008318-05 1/8.8
Date Analyzed:	08/28/20	Data File:	082719.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	5.7	1.8
Toluene	<170	<44
Ethylbenzene	80	18
m,p-Xylene	300	70
o-Xylene	82	19
Naphthalene	<2.3	<0.44

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-04-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-06 1/3.6
Date Analyzed:	08/28/20	Data File:	082720.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	1.7	0.53
Toluene	<68	<18
Ethylbenzene	5.1	1.2
m,p-Xylene	21	4.8
o-Xylene	7.3	1.7
Naphthalene	<0.94	<0.18

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-DUP-082020	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-07 1/8.8
Date Analyzed:	08/28/20	Data File:	082721.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	6.4	2.0
Toluene	<170	<44
Ethylbenzene	60	14
m,p-Xylene	230	52
o-Xylene	63	14
Naphthalene	<2.3	<0.44

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	08/20/20	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	08/27/20	Lab ID:	008318-08 1/2.8
Date Analyzed:	08/28/20	Data File:	082722.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.89	<0.28
Toluene	<53	<14
Ethylbenzene	<1.2	<0.28
m,p-Xylene	<2.4	<0.56
o-Xylene	<1.2	<0.28
Naphthalene	<0.73	<0.14

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland Lynwood, WA PO 180357
Date Collected:	Not Applicable	Lab ID:	00-1933 MB
Date Analyzed:	08/27/20	Data File:	082709.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/04/20

Date Received: 08/20/20

Project: Texaco Strickland 6808 196th St SW Lynwood, WA PO 180357, F&BI 008318

Date Extracted: 08/31/20

Date Analyzed: 08/31/20

**RESULTS FROM THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM USING METHOD ASTM D1946**

Results Reported as % Helium

<u>Sample ID</u> Laboratory ID	<u>Helium</u>
SVS-01-082020 008318-01	<0.6
SVS-02-082020 008318-02	<0.6
GP-01-082020 008318-03	<0.6
GP-02-082020 008318-04	<0.6
GP-03-082020 008318-05	<0.6
GP-04-082020 008318-06	<0.6
Method Blank	<0.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/04/20

Date Received: 08/20/20

Project: Texaco Strickland 6808 196th St SW Lynwood, WA PO 180357, F&BI 008318

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 008378-01 1/2.7 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	100	86	15
APH EC9-12 aliphatics	ug/m3	580	570	2
APH EC9-10 aromatics	ug/m3	<67	<67	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	90	70-130
APH EC9-12 aliphatics	ug/m3	67	117	70-130
APH EC9-10 aromatics	ug/m3	67	124	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/04/20

Date Received: 08/20/20

Project: Texaco Strickland 6808 196th St SW Lynwood, WA PO 180357, F&BI 008318

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 008378-01 1/2.7 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	<0.86	<0.86	nm
Toluene	ug/m3	<51	<51	nm
Ethylbenzene	ug/m3	<1.2	<1.2	nm
m,p-Xylene	ug/m3	<2.3	<2.3	nm
o-Xylene	ug/m3	<1.2	<1.2	nm
Naphthalene	ug/m3	<0.71	<0.71	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	95	70-130
Toluene	ug/m3	51	93	70-130
Ethylbenzene	ug/m3	59	100	70-130
m,p-Xylene	ug/m3	120	105	70-130
o-Xylene	ug/m3	59	107	70-130
Naphthalene	ug/m3	71	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/04/20

Date Received: 08/20/20

Project: Texaco Strickland 6808 196th St SW Lynwood, WA PO 180357, F&BI 008318

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM  
USING METHOD ASTM D1946**

Laboratory Code: 008226-07 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

Laboratory Code: 008318-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 008318**  
**Work Order Number: 2008283**

August 27, 2020

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 6 sample(s) on 8/20/2020 for the analyses presented in the following report.

***Major Gases by EPA Method 3C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

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**CLIENT:** Friedman & Bruya  
**Project:** 008318  
**Work Order:** 2008283

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**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2008283-001	SVS-01-082020	08/20/2020 9:55 AM	08/20/2020 4:30 PM
2008283-002	SVS-02-082020	08/20/2020 9:16 AM	08/20/2020 4:30 PM
2008283-003	GP-01-082020	08/20/2020 12:20 PM	08/20/2020 4:30 PM
2008283-004	GP-02-082020	08/20/2020 12:54 PM	08/20/2020 4:30 PM
2008283-005	GP-03-082020	08/20/2020 1:35 PM	08/20/2020 4:30 PM
2008283-006	GP-04-082020	08/20/2020 10:38 AM	08/20/2020 4:30 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Friedman & Bruya  
**Project:** 008318

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WorkOrder Narrative:

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Major gases are reported as % ratio of the Major Gases analyzed (Carbon dioxide, Carbon Monoxide, Methane, Nitrogen, Oxygen and Hydrogen).

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS). The LCS is processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Note: The estimated BTU calculation is based off of the methane result.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**CLIENT:** Friedman & Bruya  
**Project:** 008318

**Lab ID:** 2008283-001

**Collection Date:** 8/20/2020 9:55:00 AM

**Client Sample ID:** SVS-01-082020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R61354 Analyst: MS

Carbon Dioxide	0.121	0.0500		%	1	8/21/2020 1:48:00 PM
Methane	ND	0.0500		%	1	8/21/2020 1:48:00 PM
Oxygen	21.6	0.0500		%	1	8/21/2020 1:48:00 PM

**Lab ID:** 2008283-002

**Collection Date:** 8/20/2020 9:16:00 AM

**Client Sample ID:** SVS-02-082020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**Major Gases by EPA Method 3C**

Batch ID: R61354 Analyst: MS

Carbon Dioxide	0.0698	0.0500		%	1	8/21/2020 2:05:00 PM
Methane	ND	0.0500		%	1	8/21/2020 2:05:00 PM
Oxygen	22.9	0.0500		%	1	8/21/2020 2:05:00 PM

**Lab ID:** 2008283-003

**Collection Date:** 8/20/2020 12:20:00 PM

**Client Sample ID:** GP-01-082020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R61354 Analyst: MS

Carbon Dioxide	24.6	0.0500		%	1	8/21/2020 2:17:00 PM
Methane	ND	0.0500		%	1	8/21/2020 2:17:00 PM
Oxygen	3.44	0.0500		%	1	8/21/2020 2:17:00 PM



**CLIENT:** Friedman & Bruya  
**Project:** 008318

**Lab ID:** 2008283-004

**Collection Date:** 8/20/2020 12:54:00 PM

**Client Sample ID:** GP-02-082020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R61354 Analyst: MS

Carbon Dioxide	20.0	0.0500		%	1	8/21/2020 2:31:00 PM
Methane	ND	0.0500		%	1	8/21/2020 2:31:00 PM
Oxygen	6.95	0.0500		%	1	8/21/2020 2:31:00 PM

**Lab ID:** 2008283-005

**Collection Date:** 8/20/2020 1:35:00 PM

**Client Sample ID:** GP-03-082020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**Major Gases by EPA Method 3C**

Batch ID: R61354 Analyst: MS

Carbon Dioxide	22.8	0.0500		%	1	8/21/2020 3:04:00 PM
Methane	0.157	0.0500		%	1	8/21/2020 3:04:00 PM
Oxygen	1.90	0.0500		%	1	8/21/2020 3:04:00 PM

**Lab ID:** 2008283-006

**Collection Date:** 8/20/2020 10:38:00 AM

**Client Sample ID:** GP-04-082020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**Major Gases by EPA Method 3C**

Batch ID: R61354 Analyst: MS

Carbon Dioxide	8.53	0.0500		%	1	8/21/2020 3:29:00 PM
Methane	ND	0.0500		%	1	8/21/2020 3:29:00 PM
Oxygen	15.9	0.0500		%	1	8/21/2020 3:29:00 PM

**Work Order:** 2008283  
**CLIENT:** Friedman & Bruya  
**Project:** 008318

**QC SUMMARY REPORT**  
**Major Gases by EPA Method 3C**

Sample ID: <b>LCS-R61354</b>	SampType: <b>LCS</b>	Units: %	Prep Date: <b>8/21/2020</b>	RunNo: <b>61354</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R61354</b>		Analysis Date: <b>8/21/2020</b>	SeqNo: <b>1230886</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon Dioxide	100	0.0500	100.0	0	100	70	130				
Methane	99.6	0.0500	100.0	0	99.6	70	130				
Oxygen	100	0.0500	100.0	0	100	70	130				

Sample ID: <b>2008283-001AREP</b>	SampType: <b>REP</b>	Units: %	Prep Date: <b>8/21/2020</b>	RunNo: <b>61354</b>							
Client ID: <b>SVS-01-082020</b>	Batch ID: <b>R61354</b>		Analysis Date: <b>8/21/2020</b>	SeqNo: <b>1230880</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon Dioxide	0.102	0.0500						0.1214	17.4	30	
Methane	ND	0.0500						0		30	
Oxygen	21.9	0.0500						21.57	1.35	30	

Client Name: <b>FB</b>	Work Order Number: <b>2008283</b>
Logged by: <b>Gabrielle Coeuille</b>	Date Received: <b>8/20/2020 4:30:00 PM</b>

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

**Log In**

3. Coolers are present? Yes  No  NA
- Air samples**
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Present
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >2°C to 6°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

**Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

**Item Information**

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

**SUBCONTRACT SAMPLE CHAIN OF CUSTODY**

2008283

Page # \_\_\_\_\_ of \_\_\_\_\_

Send Report To Michael Erdahl  
 Company Friedman and Bruya, Inc.  
 Address 3012 16th Ave W  
 City, State, ZIP Seattle, WA 98119  
 Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER	
PROJECT NAME/NO.	PO #
<u>008318</u>	<u>A-338</u>
REMARKS	
<u>Please Email Results</u>	

TURNAROUND TIME

Standard TAT

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

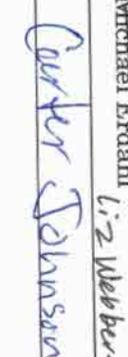
Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED			Notes
						Dioxins/Furans	EPH	VPH	
S/S-01-082020		8/20/20	955	Air	1		X		
S/S-02-082020			916		1		X		
GP-01-082020			1220		1		X		
GP-02-082020			1254		1		X		
GP-03-082020			1335		1		X		
GP-04-082020			1038		1		X		
<del>GP-05-082020</del>									
<del>GP-06-082020</del>									
<del>GP-07-082020</del>									
<del>GP-08-082020</del>									
<del>GP-09-082020</del>									
<del>GP-10-082020</del>									
<del>GP-11-082020</del>									
<del>GP-12-082020</del>									
<del>GP-13-082020</del>									
<del>GP-14-082020</del>									
<del>GP-15-082020</del>									
<del>GP-16-082020</del>									
<del>GP-17-082020</del>									
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<del>GP-19-082020</del>									
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<del>GP-23-082020</del>									
<del>GP-24-082020</del>									
<del>GP-25-082020</del>									
<del>GP-26-082020</del>									
<del>GP-27-082020</del>									
<del>GP-28-082020</del>									
<del>GP-29-082020</del>									
<del>GP-30-082020</del>									

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE		PRINT NAME		COMPANY		DATE		TIME	
Relinquished by: 		Michael Erdahl		Friedman & Bruya		8/20/20			
Received by: 		Liz Weber Bruya		Friedman & Bruya		8/20/20		1030	
Relinquished by: _____									
Received by: _____									

008318

SAMPLE CHAIN OF CUSTODY

ME 08-20-20

1 of 1

Report To: Andrew Yonkotski / Adam Griffin

Company: Aspet Consulting

Address: 710 2nd Ave, Ste. 550

City, State, ZIP: Seattle, WA, 98104

Phone: (206) 413-5411 Email: ayonkotski@aspetconsulting.com

SAMPLERS (signature) <u>[Signature]</u>	PROJECT NAME & ADDRESS <u>Texas Streetland 6808 146th St, SW, Lynnwood, WA</u>	PO # <u>180357</u>
NOTES: <u>Aspet Consulting.com</u>	INVOICE TO <u>AP</u>	

Page # 1 of 1

TURNAROUND TIME

Standard  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL  
 Default: Clean after 3 days  
 Archive (Fee may apply)

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	ANALYSIS REQUESTED			Notes
										TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	
SUS-01-082020	01	3387	255	IA / <u>SG</u>	8/20/20	-30	0950	-5	0955	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CO2, CH4, O2, etc
SUS-02-082020	02	2434	259	IA / <u>SG</u>		-28	0912	-5	0916	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GP-01-082020	03	2360	242	IA / <u>SG</u>		-30	1215	-5	1220	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GP-02-082020	04	2433	105	IA / <u>SG</u>		-30	1254	-5	1254	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GP-03-082020	05	3260	101	IA / <u>SG</u>		-30	1331	-5	1335	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GP-04-082020	06	3540	88	IA / <u>SG</u>		-28	1032	-5	1038	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
GP-DUP-082020	07	2438	109	IA / <u>SG</u>		-30	-	-5	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DTEXN + APH only
Trip Blank	08	2305	108	IA / SG		-	-	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282  
 Fax (206) 283-5044  
 FORMS\OCC\OCCOCTO-15.DOC

SIGNATURE <u>[Signature]</u>	PRINT NAME <u>David Urel</u>	COMPANY <u>Aspet Consulting</u>	DATE <u>8/20/20</u>	TIME <u>1445</u>
Relinquished by:	<u>[Signature]</u>	<u>AP</u>		
Relinquished by:	<u>[Signature]</u>	<u>AP</u>		
Received by:	<u>[Signature]</u>	<u>AP</u>		

Samples received at 25:00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

November 24, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on November 10, 2020 from the Texaco Strickland PO 180357, F&BI 011185 project. There are 9 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP1124R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 10, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 011185 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011185 -01	GP-05-1.25
011185 -02	GP-05-6
011185 -03	GP-06-2.5

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/24/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

Date Extracted: 11/18/20

Date Analyzed: 11/18/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
GP-05-6 011185-02	<0.02	<0.02	<0.02	<0.06	<5	82
Method Blank 00-2419 MB2	<0.02	<0.02	<0.02	<0.06	<5	81

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/24/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

Date Extracted: 11/18/20

Date Analyzed: 11/18/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
GP-05-6 011185-02	<50	<250	90
Method Blank 00-2532 MB	<50	<250	98

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	GP-05-6	Client:	Aspect Consulting, LLC
Date Received:	11/10/20	Project:	Texaco Strickland PO 180357
Date Extracted:	11/19/20	Lab ID:	011185-02
Date Analyzed:	11/19/20	Data File:	111919.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	62	145
Toluene-d8	100	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	11/19/20	Lab ID:	00-2697 mb
Date Analyzed:	11/19/20	Data File:	111909.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/24/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 011312-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	92	69-120
Toluene	mg/kg (ppm)	0.5	94	70-117
Ethylbenzene	mg/kg (ppm)	0.5	94	65-123
Xylenes	mg/kg (ppm)	1.5	93	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/24/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 011185-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	98	94	73-135	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	90	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/24/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011324-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	1	<0.05	86	78	14-157	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	1	91	63-140

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

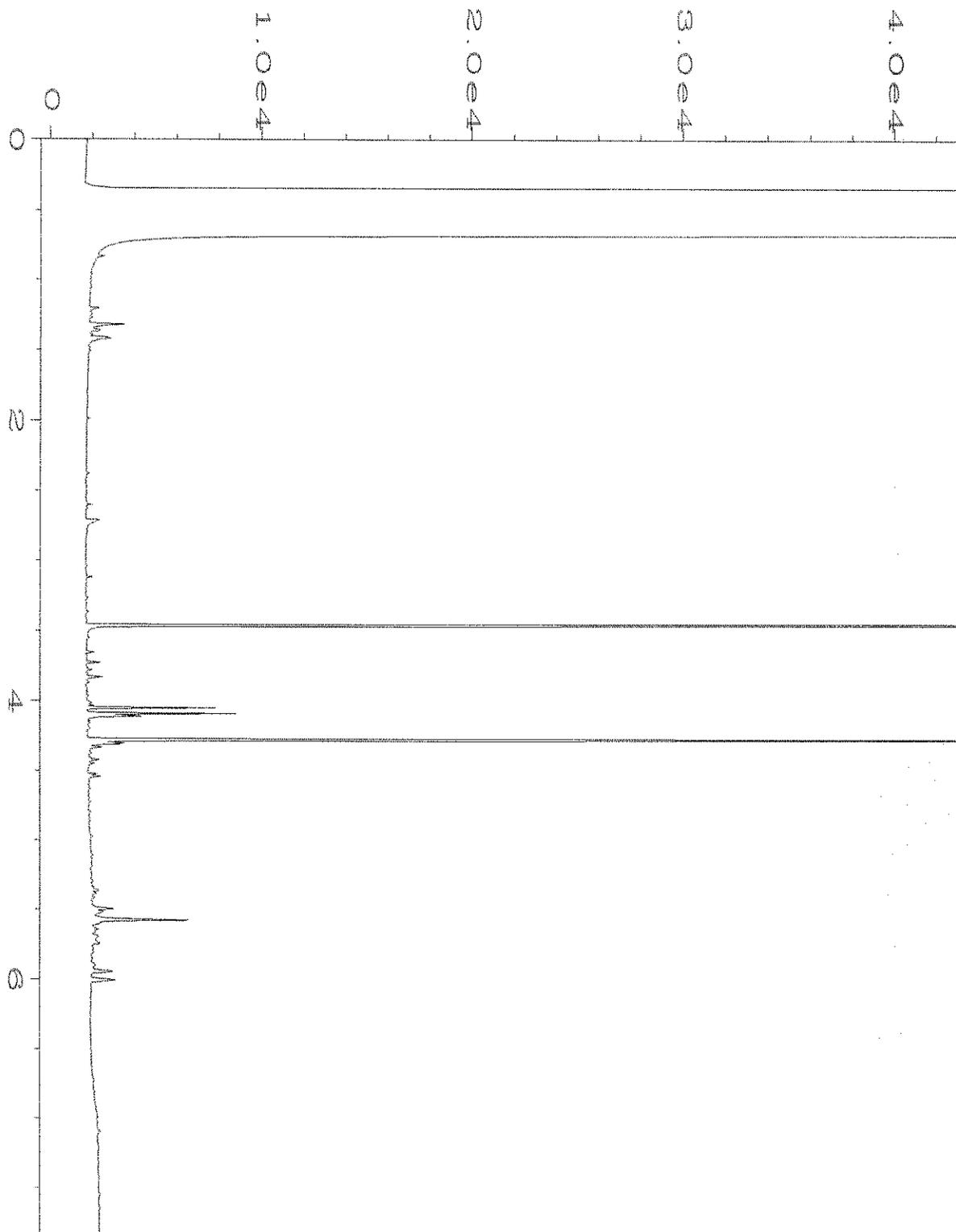
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

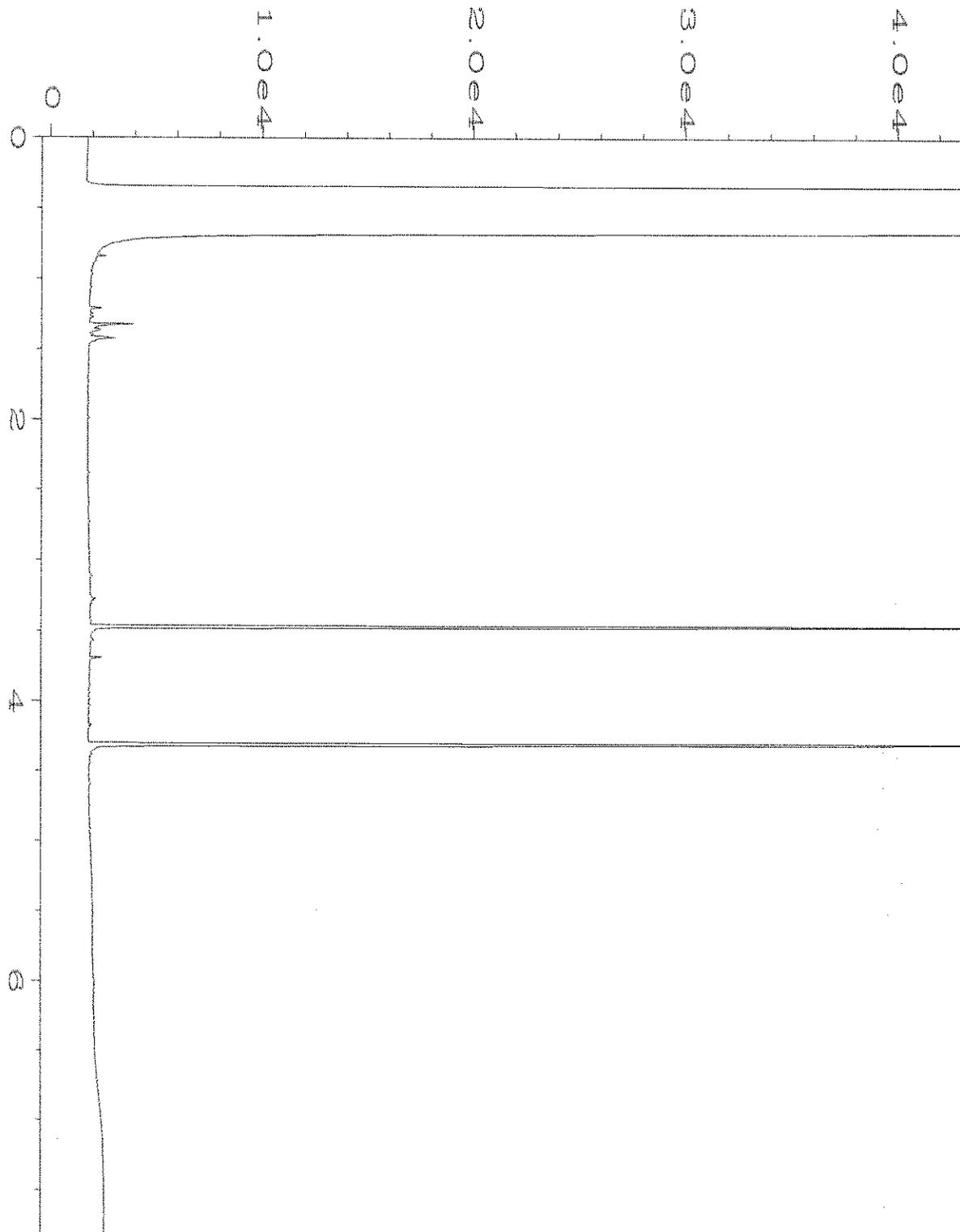
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

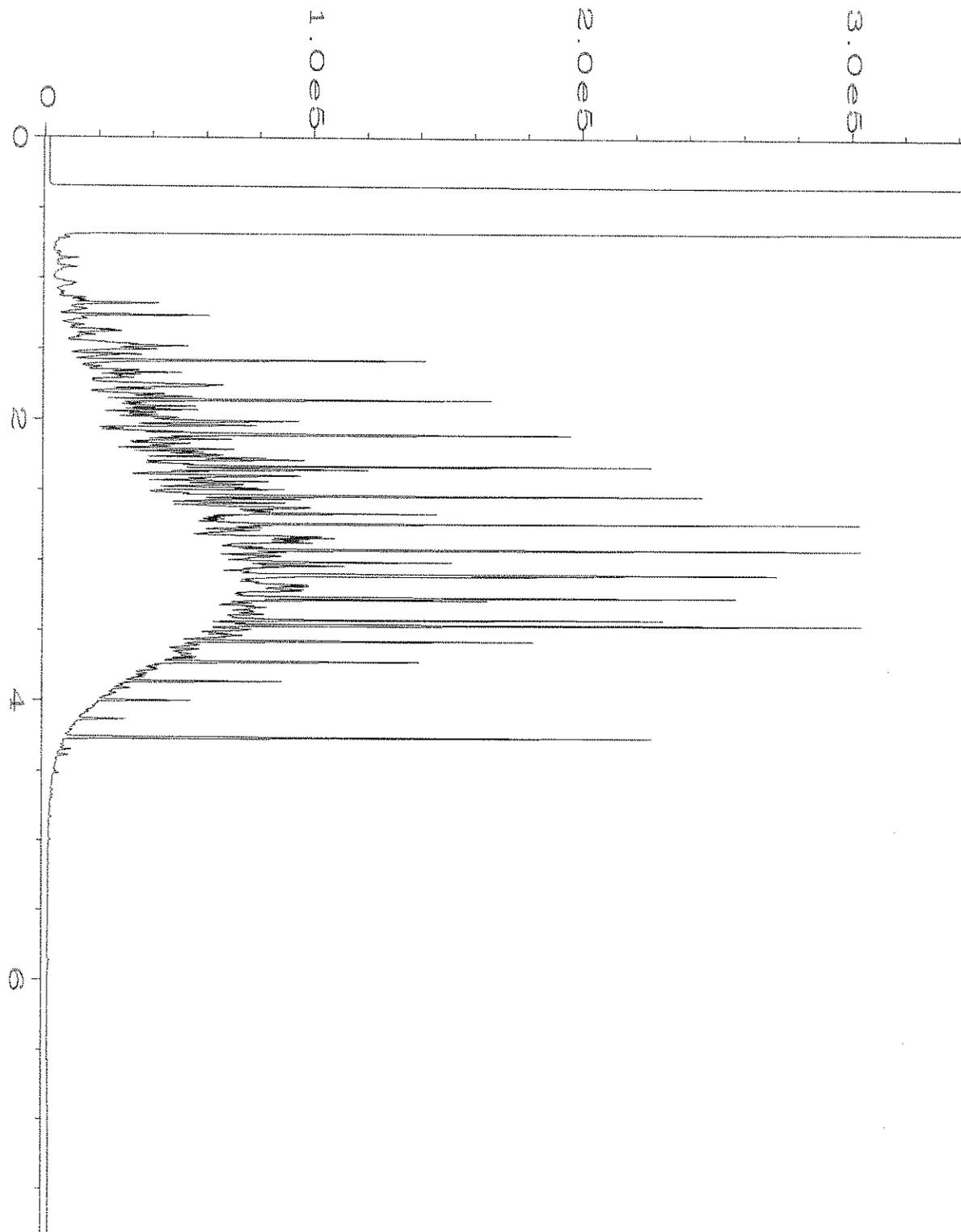
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\4\DATA\11-18-20\010F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 10
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 011185-02	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Nov 20 10:53 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Nov 20 06:39 AM		



Data File Name	: C:\HPCHEM\4\DATA\11-18-20\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 00-2532 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Nov 20 10:06 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Nov 20 06:39 AM		



Data File Name	: C:\HPCHEM\4\DATA\11-18-20\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 61-146C	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Nov 20 01:32 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Nov 20 06:39 AM		



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

November 17, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 10, 2020 from the Texaco Strickland PO 180357, F&BI 011185 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP1117R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 10, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 011185 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011185 -01	GP-05-1.25
011185 -02	GP-05-6
011185 -03	GP-06-2.5

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/17/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

Date Extracted: 11/13/20

Date Analyzed: 11/13/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
GP-05-1.25 011185-01	<0.02	<0.02	<0.02	<0.06	<5	89
GP-06-2.5 011185-03	<0.02	<0.02	<0.02	<0.06	<5	89
Method Blank 00-2418 MB	<0.02	<0.02	<0.02	<0.06	<5	89

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/17/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

Date Extracted: 11/10/20

Date Analyzed: 11/10/20

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
GP-05-1.25 011185-01	<50	<250	80
GP-06-2.5 011185-03	<50	<250	84
Method Blank 00-2494 MB	<50	<250	83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	GP-05-1.25	Client:	Aspect Consulting, LLC
Date Received:	11/10/20	Project:	Texaco Strickland PO 180357
Date Extracted:	11/10/20	Lab ID:	011185-01
Date Analyzed:	11/10/20	Data File:	111033.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	104	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	GP-06-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/10/20	Project:	Texaco Strickland PO 180357
Date Extracted:	11/10/20	Lab ID:	011185-03
Date Analyzed:	11/10/20	Data File:	111034.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	104	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	11/10/20	Lab ID:	00-2668 mb
Date Analyzed:	11/10/20	Data File:	111009.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	104	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/17/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 011185-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	88	69-120
Toluene	mg/kg (ppm)	0.5	90	70-117
Ethylbenzene	mg/kg (ppm)	0.5	92	65-123
Xylenes	mg/kg (ppm)	1.5	93	66-120
Gasoline	mg/kg (ppm)	20	90	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/17/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 011154-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	26,000	180 b	177 b	64-133	2 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/17/20

Date Received: 11/10/20

Project: Texaco Strickland PO 180357, F&BI 011185

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011140-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	1	<0.05	98	104	14-157	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	1	86	63-140

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

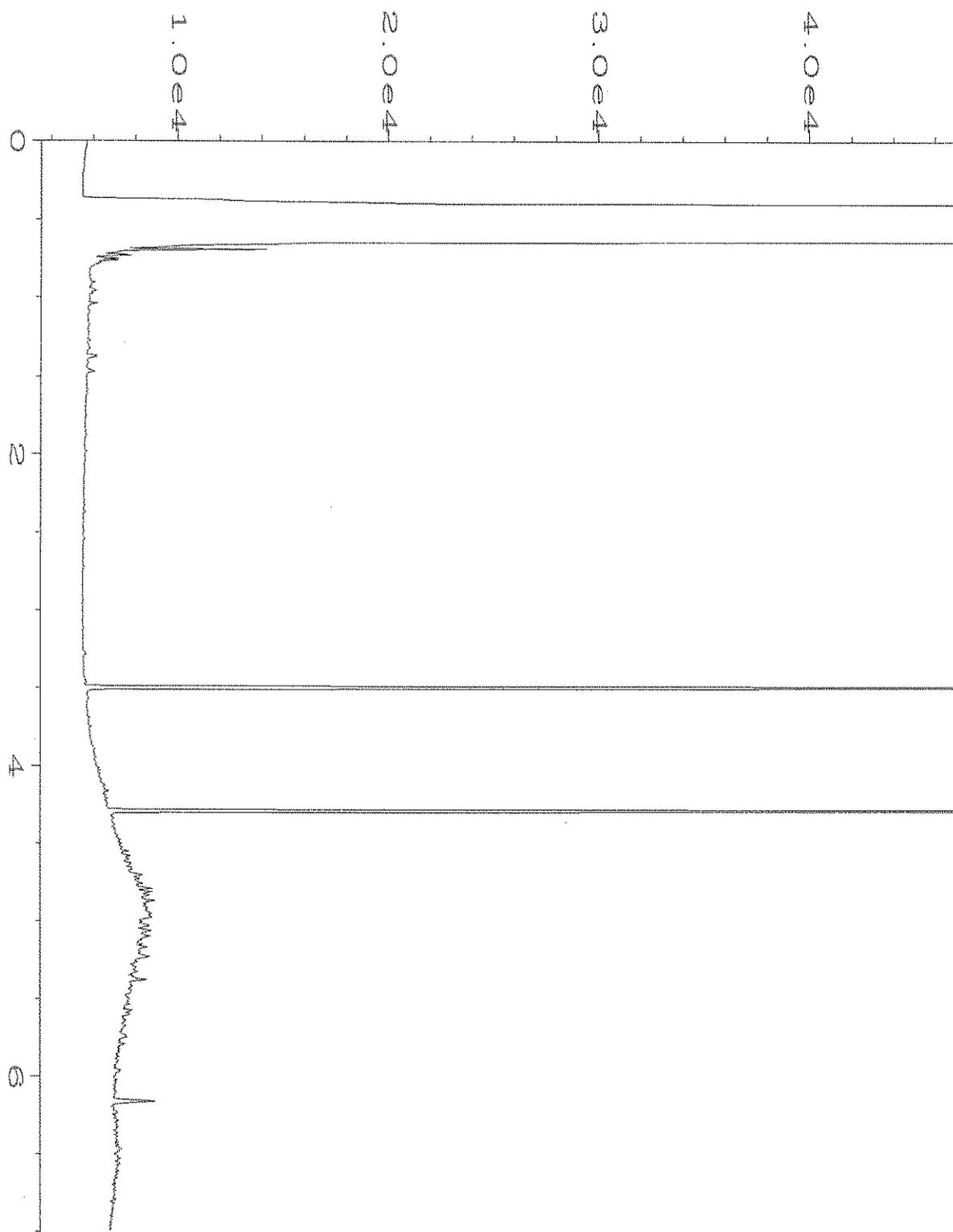
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

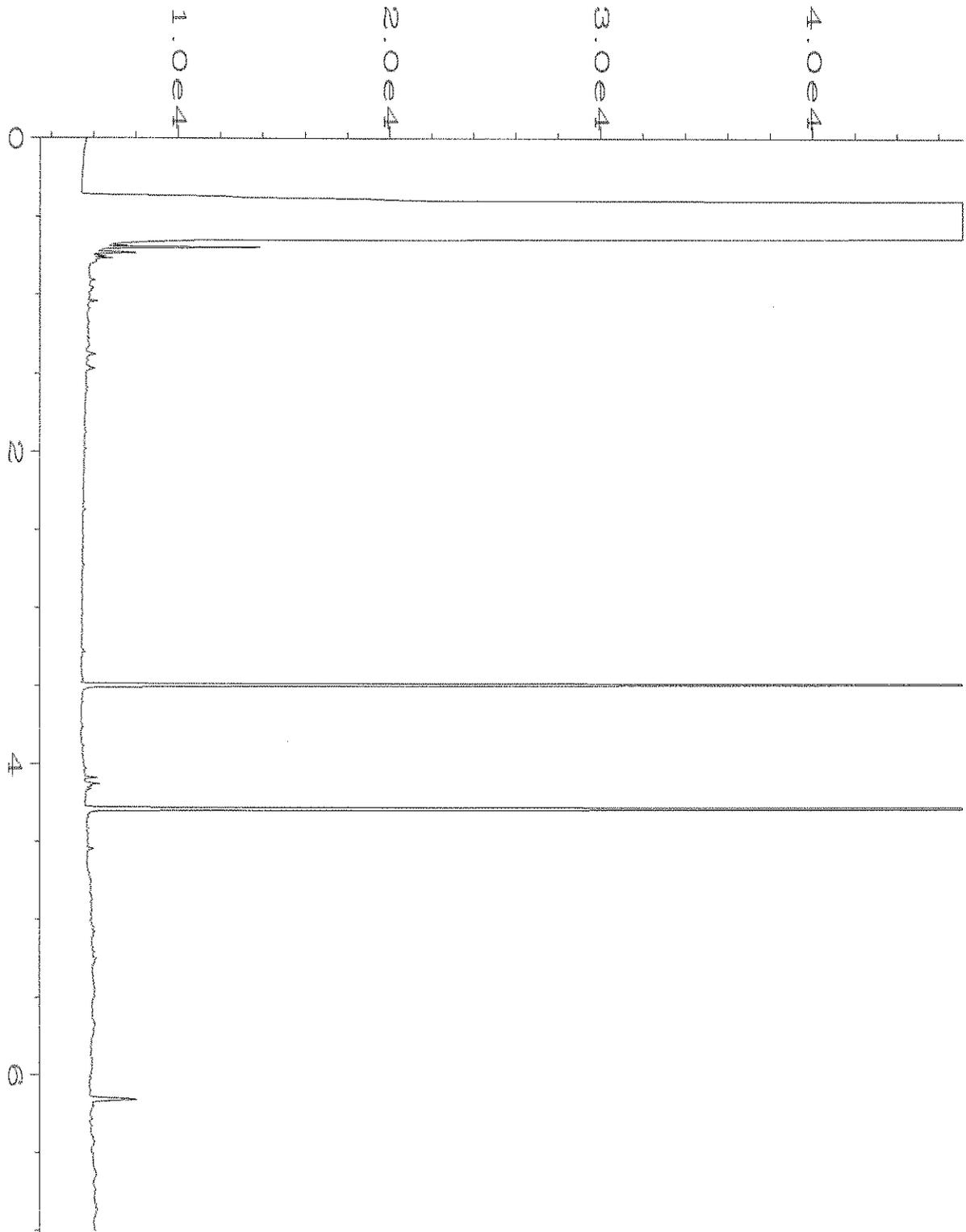
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

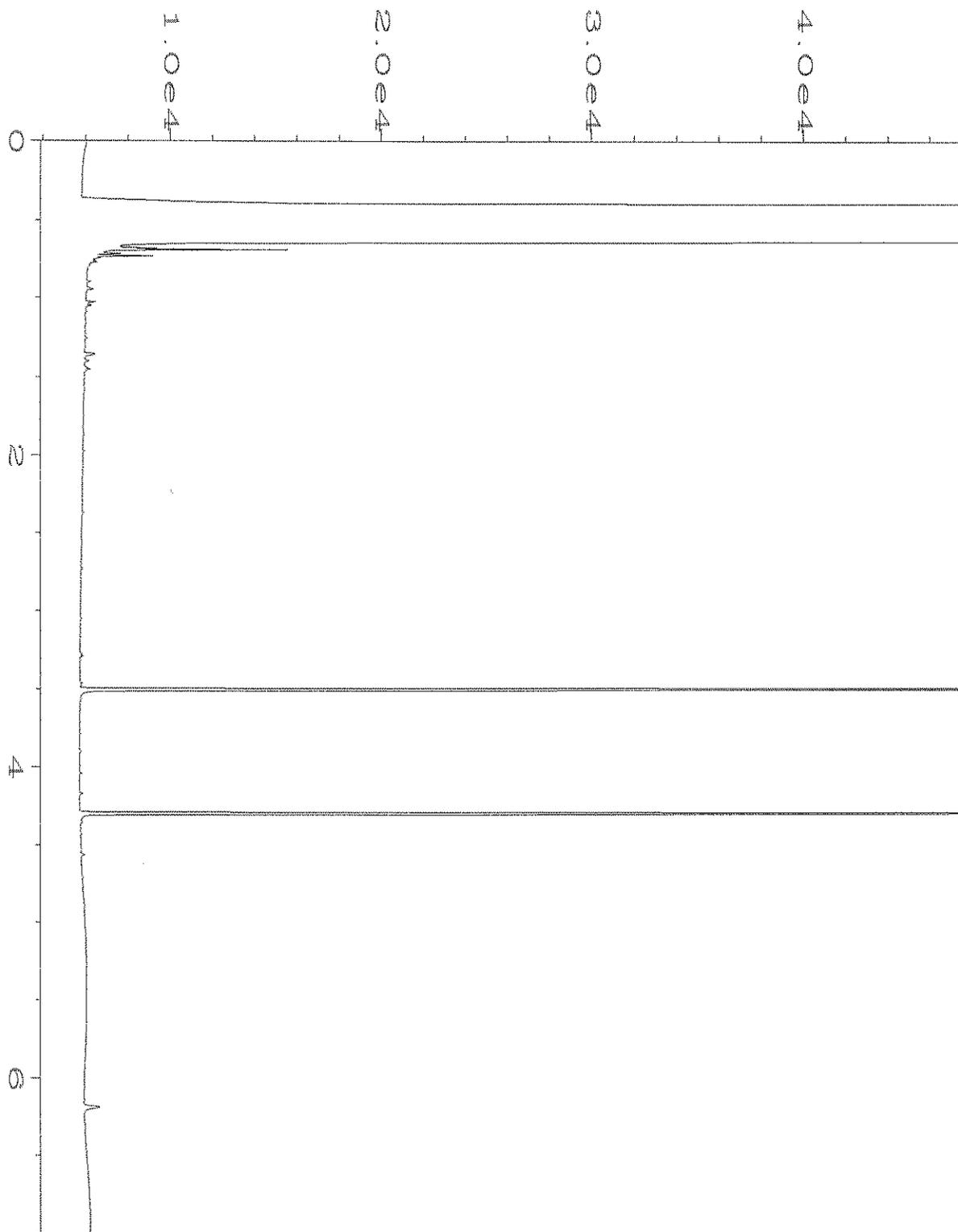
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



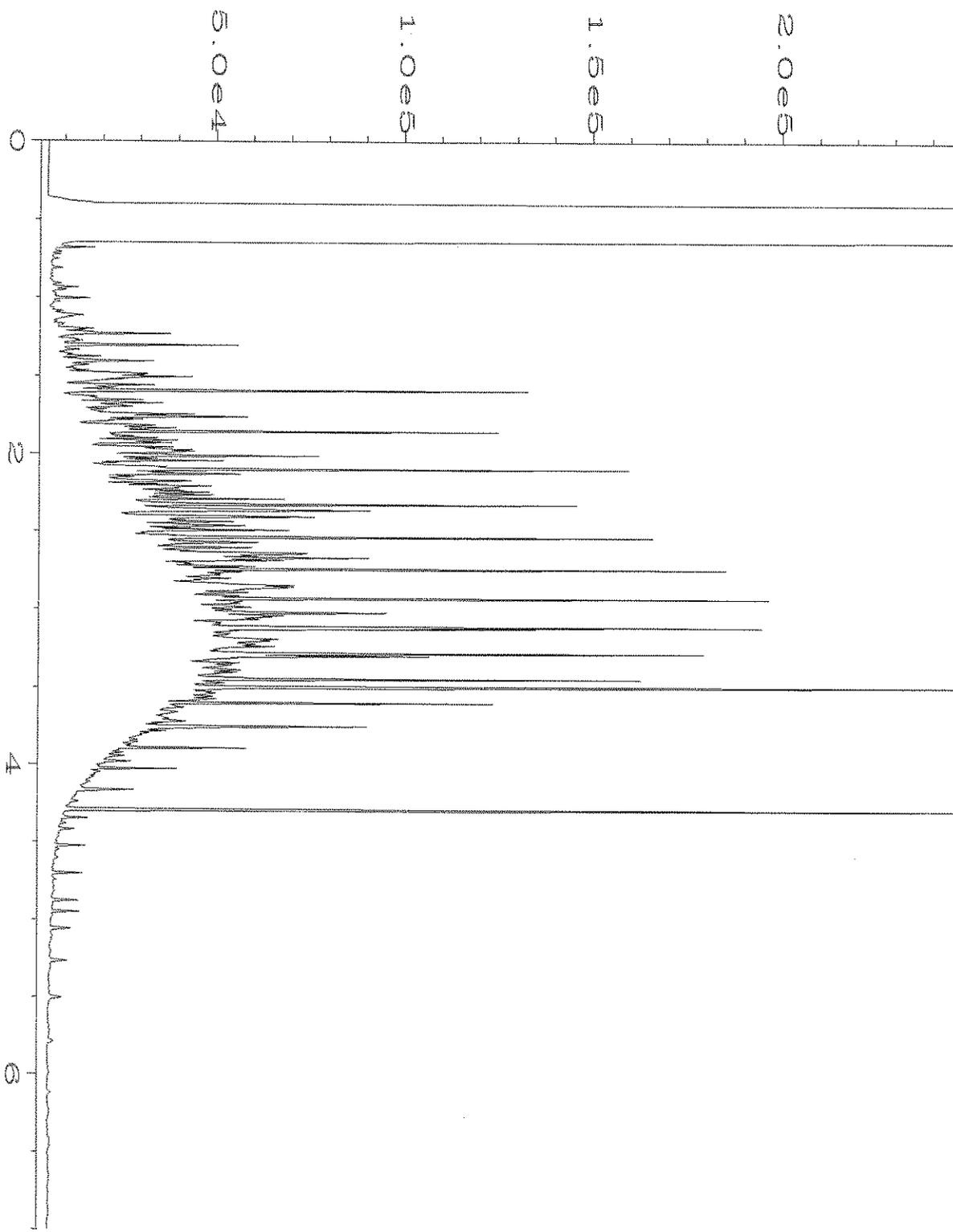
Data File Name	: C:\HPCHEM\6\DATA\11-10-20\036F0601.D	Page Number	: 1
Operator	: TL	Vial Number	: 36
Instrument	: GC6	Injection Number	: 1
Sample Name	: 011185-01	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 10 Nov 20 04:17 PM	Analysis Method	: DX.MTH
Report Created on:	11 Nov 20 09:44 AM		



Data File Name	: C:\HPCHEM\6\DATA\11-10-20\037F0601.D	Page Number	: 1
Operator	: TL	Vial Number	: 37
Instrument	: GC6	Injection Number	: 1
Sample Name	: 011185-03	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 10 Nov 20 04:28 PM	Analysis Method	: DX.MTH
Report Created on:	11 Nov 20 09:44 AM		



Data File Name	: C:\HPCHEM\6\DATA\11-10-20\015F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 15
Instrument	: GC6	Injection Number	: 1
Sample Name	: 00-2494 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 10 Nov 20 09:59 AM	Analysis Method	: DX.MTH
Report Created on:	11 Nov 20 09:44 AM		



Data File Name	: C:\HPCHEM\6\DATA\11-10-20\003F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 3
Instrument	: GC6	Injection Number	: 1
Sample Name	: 500 Dx 61-146D	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 10 Nov 20 04:50 PM	Analysis Method	: DX.MTH
Report Created on:	11 Nov 20 09:41 AM		

01185

SAMPLE CHAIN OF CUSTODY

ME 11/10-20

VS/401

Report To: Andrew Vinkofski

Company: Aspect Consulting

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle, WA 98104

Phone: (206) 413-5411 Email: avinko@aspectconsulting.com

SAMPLERS (signature): <u>David Urak</u>	PROJECT NAME: <u>TEXACO S trickland</u>	PO #: <u>1803 57</u>
REMARKS: *	INVOICE TO: <u>AP</u>	

Page # 1 of 1

TURNAROUND TIME

Standard turnaround

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Archive samples

Other \_\_\_\_\_

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Napthalene	Hold				
GP-05-1.25	01 A.E	11/10/20	0928	Soil	5	X	X	X										
GP-05-6	02		0936	Soil	5													
GP-06-2.5	03		1226	Soil	5	X	X	X							X			

Samples received at 4 oC

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>David Urak</u>	<u>David Urak</u>	<u>Aspect Consulting</u>	<u>11/10/20</u>	<u>1445</u>
<u>M. Vinko</u>	<u>Phan Phan</u>	<u>FE BI</u>	<u>11/10/20</u>	<u>1445</u>
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
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November 30, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 18, 2020 from the Texaco Strickland PO 180357, F&BI 011339 project. There are 46 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Adam Griffin  
ASP1130R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 18, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 011339 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011339 -01	MW-1-111820
011339 -02	MW-2-111720
011339 -03	MW-6-111620
011339 -04	MW-7-111720
011339 -05	MW-9-111620
011339 -06	MW-10-111720
011339 -07	MW-11-111720
011339 -08	MW-12-111620
011339 -09	MW-13-111720
011339 -10	MW-14-111820
011339 -11	MW-16-111620
011339 -12	MW-17-111620
011339 -13	MW-18-111620
011339 -14	MW-19-111720
011339 -15	MW-20-111720
011339 -16	MW-21-111720
011339 -17	MW-22-111620
011339 -18	MW-23-111820
011339 -19	MW-24-111720
011339 -20	MW-25-111620
011339 -21	MW-26-111620
011339 -22	CMW-1-111720
011339 -23	CMW-4-111720
011339 -24	DUP-01-111620
011339 -25	DUP-02-111720
011339 -26	RB-01-111720
011339 -27	RB-02-111820
011339 -28	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

Date Extracted: 11/19/20

Date Analyzed: 11/20/20 and 11/24/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-1-111820 011339-01 1/10	31,000	105
MW-2-111720 011339-02	4,100	93
MW-6-111620 011339-03	<100	92
MW-7-111720 011339-04	<100	90
MW-9-111620 011339-05	<100	93
MW-10-111720 011339-06 1/10	12,000	107
MW-11-111720 011339-07 1/10	5,400	97
MW-12-111620 011339-08	410	101
MW-13-111720 011339-09	1,200	105
MW-14-111820 011339-10	6,400	85
MW-16-111620 011339-11	<100	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

Date Extracted: 11/19/20

Date Analyzed: 11/20/20 and 11/24/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-17-111620 011339-12	1,200	89
MW-18-111620 011339-13	340	93
MW-19-111720 011339-14	<100	91
MW-20-111720 011339-15	<100	90
MW-21-111720 011339-16	6,600	121
MW-22-111620 011339-17 1/10	24,000	117
MW-23-111820 011339-18 1/10	27,000	105
MW-24-111720 011339-19	<100	93
MW-25-111620 011339-20	<100	91
MW-26-111620 011339-21	<100	89
CMW-1-111720 011339-22	<100	87

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

Date Extracted: 11/19/20

Date Analyzed: 11/20/20 and 11/24/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
CMW-4-111720 011339-23	<100	90
DUP-01-111620 011339-24	370	91
DUP-02-111720 011339-25 1/20	13,000	72
RB-01-111720 011339-26	<100	92
RB-02-111820 011339-27	<100	92
Trip Blank 011339-28	<100	90
Method Blank 00-2424 MB	<100	91
Method Blank 00-2426 MB	<100	94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

Date Extracted: 11/20/20

Date Analyzed: 11/20/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-1-111820 011339-01	1,800 x	810 x	107
MW-2-111720 011339-02	1,300 x	<250	103
MW-6-111620 011339-03	<50	<250	111
MW-7-111720 011339-04	<50	<250	114
MW-9-111620 011339-05	<54	<250	106
MW-10-111720 011339-06	1,400 x	<250	100
MW-11-111720 011339-07	720 x	<250	104
MW-12-111620 011339-08	230 x	<250	101
MW-13-111720 011339-09	490 x	260 x	124
MW-14-111820 011339-10	780 x	290 x	102
MW-16-111620 011339-11	<50	<250	102
MW-17-111620 011339-12	550 x	<250	128

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

Date Extracted: 11/20/20

Date Analyzed: 11/20/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-18-111620 011339-13	59 x	<250	133
MW-19-111720 011339-14	<50	<250	126
MW-20-111720 011339-15	<50	<250	119
MW-21-111720 011339-16	2,800 x	360 x	127
MW-22-111620 011339-17	3,000 x	410 x	117
MW-23-111820 011339-18	2,600 x	390 x	126
MW-24-111720 011339-19	<50	<250	123
MW-25-111620 011339-20	<50	<250	120
MW-26-111620 011339-21	<50	<250	108
CMW-1-111720 011339-22	<50	<250	109
CMW-4-111720 011339-23	<50	<250	118
DUP-01-111620 011339-24	59 x	<250	131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

Date Extracted: 11/20/20

Date Analyzed: 11/20/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS**

**DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 41-152)
DUP-02-111720 011339-25	1,700 x	280 x	115
RB-01-111720 011339-26	<50	<250	111
RB-02-111820 011339-27	<50	<250	129
Method Blank 00-2573 MB	<50	<250	103
Method Blank 00-2542 MB2	<50	<250	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-1-111820	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-01 1/50
Date Analyzed:	11/20/20	Data File:	111947.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	5,600
Toluene	740
Ethylbenzene	720
m,p-Xylene	2,200
o-Xylene	580
Naphthalene	200

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-2-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-02
Date Analyzed:	11/19/20	Data File:	111936.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	29
Toluene	7.8
Ethylbenzene	49
m,p-Xylene	20
o-Xylene	4.4
Naphthalene	150

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-6-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-03
Date Analyzed:	11/19/20	Data File:	111937.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	121	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-7-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-04
Date Analyzed:	11/19/20	Data File:	111938.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	116	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-9-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-05
Date Analyzed:	11/19/20	Data File:	111939.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	87	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-10-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-06 1/10
Date Analyzed:	11/20/20	Data File:	111948.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1,600 ve
Toluene	31
Ethylbenzene	630
m,p-Xylene	620
o-Xylene	<10
Naphthalene	220

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-10-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-06 1/50
Date Analyzed:	11/21/20	Data File:	112030.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	131	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1,800

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-11-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-07 1/50
Date Analyzed:	11/20/20	Data File:	111949.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	113	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	107	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	160
Toluene	290
Ethylbenzene	220
m,p-Xylene	280
o-Xylene	120
Naphthalene	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-12-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-08
Date Analyzed:	11/19/20	Data File:	111940.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	0.65
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-13-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-09
Date Analyzed:	11/19/20	Data File:	111941.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	113	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1.5
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-111820	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-10 1/10
Date Analyzed:	11/20/20	Data File:	111950.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	118	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	1,800 ve
Toluene	19
Ethylbenzene	31
m,p-Xylene	<20
o-Xylene	<10
Naphthalene	46

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-111820	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-10 1/50
Date Analyzed:	11/21/20	Data File:	112031.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	107	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	2,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-16-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-11
Date Analyzed:	11/19/20	Data File:	111942.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-17-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-12
Date Analyzed:	11/20/20	Data File:	111943.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	115	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	5.7
Toluene	6.9
Ethylbenzene	<1
m,p-Xylene	16
o-Xylene	<1
Naphthalene	1.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-18-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-13
Date Analyzed:	11/20/20	Data File:	111944.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	121	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	61
Toluene	<1
Ethylbenzene	2.1
m,p-Xylene	9.8
o-Xylene	2.1
Naphthalene	2.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-19-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-14
Date Analyzed:	11/20/20	Data File:	111945.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-20-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-15
Date Analyzed:	11/20/20	Data File:	111946.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	105	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-21-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-16 1/10
Date Analyzed:	11/19/20	Data File:	111938.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	107	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	25
Toluene	12
Ethylbenzene	620
m,p-Xylene	43
o-Xylene	<10
Naphthalene	440

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-22-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-17 1/20
Date Analyzed:	11/19/20	Data File:	111939.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	103	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	1,000
Toluene	240
Ethylbenzene	1,300
m,p-Xylene	3,500
o-Xylene	380
Naphthalene	390

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-23-111820	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-18 1/50
Date Analyzed:	11/19/20	Data File:	111940.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	5,300
Toluene	120
Ethylbenzene	640
m,p-Xylene	930
o-Xylene	<50
Naphthalene	170

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-24-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-19
Date Analyzed:	11/19/20	Data File:	111935.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-25-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-20
Date Analyzed:	11/19/20	Data File:	111936.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	0.53
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-26-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-21
Date Analyzed:	11/19/20	Data File:	111937.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	103	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	CMW-1-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-22
Date Analyzed:	11/19/20	Data File:	111943.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	CMW-4-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-23
Date Analyzed:	11/19/20	Data File:	111944.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DUP-01-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-24
Date Analyzed:	11/21/20	Data File:	112029.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	104	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	83
Toluene	1.3
Ethylbenzene	3.3
m,p-Xylene	15
o-Xylene	2.9
Naphthalene	3.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DUP-02-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-25 1/50
Date Analyzed:	11/19/20	Data File:	111942.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	1,800
Toluene	32
Ethylbenzene	710
m,p-Xylene	690
o-Xylene	<50
Naphthalene	200

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	RB-01-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-26
Date Analyzed:	11/19/20	Data File:	111932.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	RB-02-111820	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-27
Date Analyzed:	11/19/20	Data File:	111933.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	011339-28
Date Analyzed:	11/19/20	Data File:	111934.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	00-2696 mb
Date Analyzed:	11/19/20	Data File:	111908.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<0.5
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357, F&BI 011339
Date Extracted:	11/19/20	Lab ID:	00-2545 mb
Date Analyzed:	11/19/20	Data File:	111907.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	125	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 011333-05 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	97	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 011339-11 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	93	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	88	92	63-142	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	89	108	63-142	19

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011340-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	105	50-150
Toluene	ug/L (ppb)	10	<1	104	50-150
Ethylbenzene	ug/L (ppb)	10	<1	106	50-150
m,p-Xylene	ug/L (ppb)	20	<2	104	50-150
o-Xylene	ug/L (ppb)	10	<1	105	50-150
Naphthalene	ug/L (ppb)	10	<1	108	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent		Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	99	106	70-130	7
Toluene	ug/L (ppb)	10	103	107	70-130	4
Ethylbenzene	ug/L (ppb)	10	104	105	70-130	1
m,p-Xylene	ug/L (ppb)	20	102	104	70-130	2
o-Xylene	ug/L (ppb)	10	103	105	70-130	2
Naphthalene	ug/L (ppb)	10	108	107	70-130	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/30/20

Date Received: 11/18/20

Project: Texaco Strickland PO 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011339-19 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	99	76-125
Toluene	ug/L (ppb)	10	<1	98	76-122
Ethylbenzene	ug/L (ppb)	10	<1	99	69-135
m,p-Xylene	ug/L (ppb)	20	<2	99	69-135
o-Xylene	ug/L (ppb)	10	<1	97	60-140
Naphthalene	ug/L (ppb)	10	<1	90	44-164

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	10	102	100	69-134	2
Toluene	ug/L (ppb)	10	99	97	72-122	2
Ethylbenzene	ug/L (ppb)	10	99	98	77-124	1
m,p-Xylene	ug/L (ppb)	20	99	96	81-112	3
o-Xylene	ug/L (ppb)	10	100	96	81-121	4
Naphthalene	ug/L (ppb)	10	100	95	64-133	5

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011339

SAMPLE CHAIN OF CUSTODY

ME 11-18-20

W5/1503

Page # of 3

Report To Andrew Korboski / Alon Kofler

Company Aspect Consultants

Address 710 2nd Ave Ste 550

City, State, ZIP Seattle WA, 98104

Phone (206) 413-5411 Email [ayk@aspect.com](mailto:ayk@aspect.com)

SAMPLERS (signature) *[Signature]*

PROJECT NAME Texas Shiloh

PO # 180357

REMARKS AP

INVOICE TO AP

TURNAROUND TIME

Standard turnaround

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Archive samples

Other \_\_\_\_\_

Default: Dispose after 30 days

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8032	Notes
MU-1-111820	01A-C	11/18/20	0945	UG	7	X	X					X	
MU-2-111720	02	11/17/20	1500		1								
MU-6-111620	03	11/16/20	1550		1								
MU-7-111720	04	11/17/20	1120		1								
MU-9-111620	05	11/16/20	1400		1								
MU-10-111720	06	11/17/20	1345		1								
MU-11-111720	07	11/17/20	1010		1								
MU-12-111620	08	11/16/20	1415		1								
MU-13-111720	09	11/17/20	1330		1								
MU-14-111820	10	11/18/20	1140		1								

SIGNATURE / PRINT NAME

Relinquished by: *[Signature]* David Unruh

Received by: *[Signature]* Alon Kofler

Relinquished by: *[Signature]* Alon Kofler

Received by: *[Signature]* Alon Kofler

COMPANY

Aspect Consultants

FEBI

DATE

11/18/20

TIME

1448

Samples received at 3

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

011339

SAMPLE CHAIN OF CUSTODY

ME 11-18-20

WWS 1503

Page # 2 of 3

Report To: Andrew Yorkelski & Adam Erickson

Company: Aspect Consulting

Address: 710 2nd Ave Ste 550

City, State, ZIP: Seattle, WA 98104

Phone: (206) 413-5411 Email: ayorkelski@aspectconsulting.com

SAMPLERS (signature)	<u>Tina Wood</u>
PROJECT NAME	<u>Texaco Strickland</u>
PO #	<u>180357</u>
REMARKS	<u>INVOICE TO AP</u>

Standard turnaround  RUSH   
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Archive samples  
 Other  
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082		
MWS-16-111620	11A-G	11/16/20	0850	UL	2	X	X						X	
MWS-17-111620	12	11/17/20	0850		1									
MWS-18-111620	13	11/16/20	1110		1									
MWS-19-111720	14	11/17/20	1306		1									
MWS-20-111720	15		0915		1									
MWS-21-111720	16		1030		1									
MWS-22-111620	17	11/16/20	1315		1									
MWS-23-111820	18	11/18/20	1040		1									
MWS-24-111720	19	11/17/20	0900		1									
MWS-25-111620	20	11/16/20	1215		1									

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

Relinquished by: <u>Tina Wood</u>	PRINT NAME	<u>Daryl Urrut</u>	COMPANY	<u>Aspect Consulting</u>	DATE	TIME
Received by: <u>MW WWS</u>		<u>Dawn Pivan</u>		<u>FTBI</u>	<u>11/18/20</u>	<u>1445</u>
Relinquished by:						
Received by:						

Samples received at 3 °C

011339

SAMPLE CHAIN OF CUSTODY ME 11-18-20

11/18/20 1503

Page # 3 of 3

Report To Andrew Yanketsko / Dawn Collier

Company Aspect Consultants

Address 710 2nd Ave Ste 550

City, State, ZIP Seattle, WA, 98104

Phone (206) 413-5711 Email ayanketsko@aspectconsulting.com

SAMPLERS (signature) [Signature]

PROJECT NAME Texas Strikland

REMARKS Project specific RI's? - Yes / No

TURNAROUND TIME  
Standard turnaround  
 RUSH  
Rush charges authorized by:

PO # 180357

INVOICE TO APP

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes					
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082						
MU-26-111620	21 A-G	11/16/20	0955	WH	7	X	X											
CMU-1-111720	22	11/17/20	1155		1													
CMU-4-111720	23	11/17/20	1345		1													
DUP-01-111620	24	11/16/20			1													
DUP-02-111720	25	11/17/20			1													
RB-01-111720	26	11/17/20	1455	AD	1													
RB-02-111820	27	11/18/20	1205		1													
Trap Blank	28AD				4													

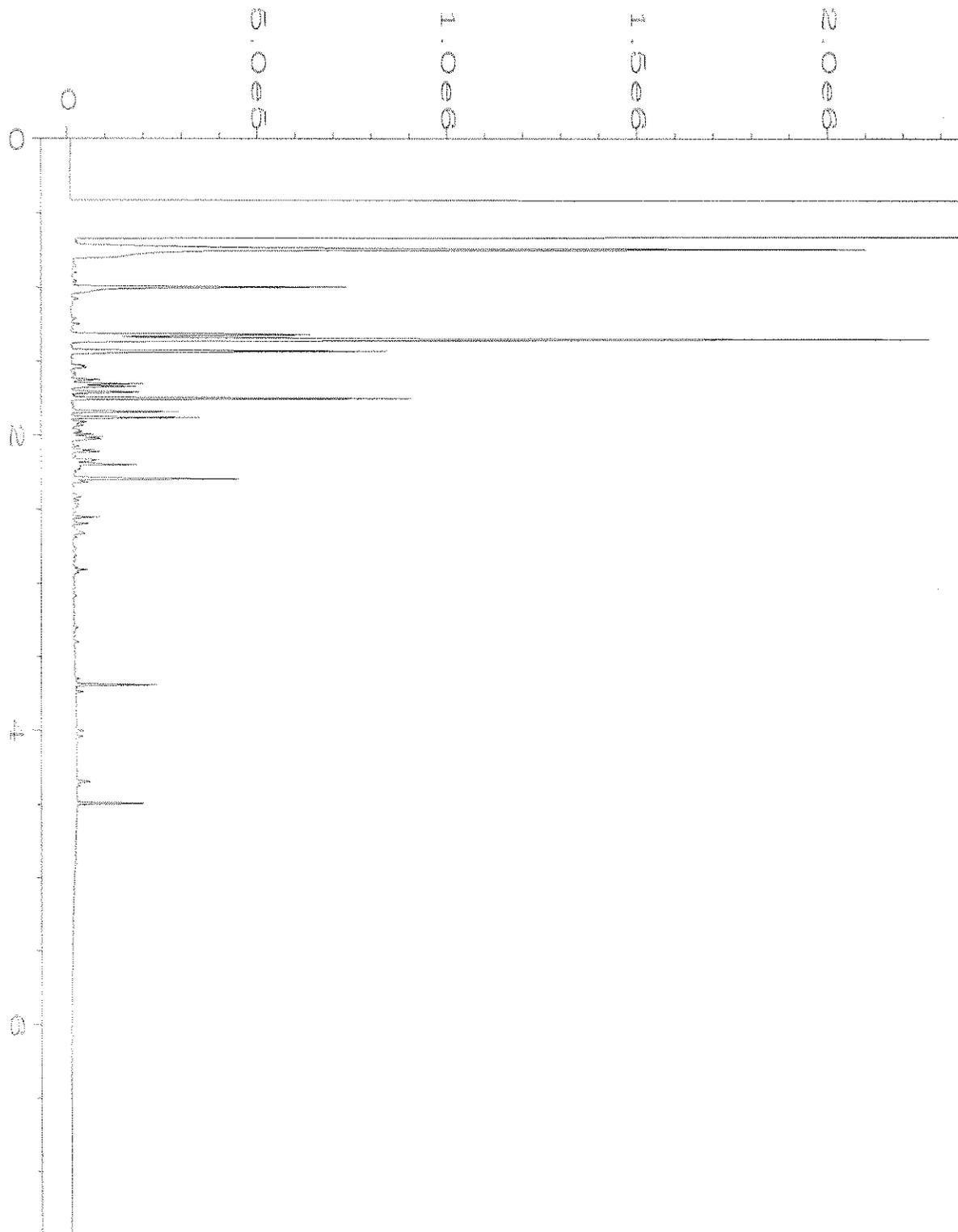
Friedman & Bruya, Inc.

3012 16th Avenue West

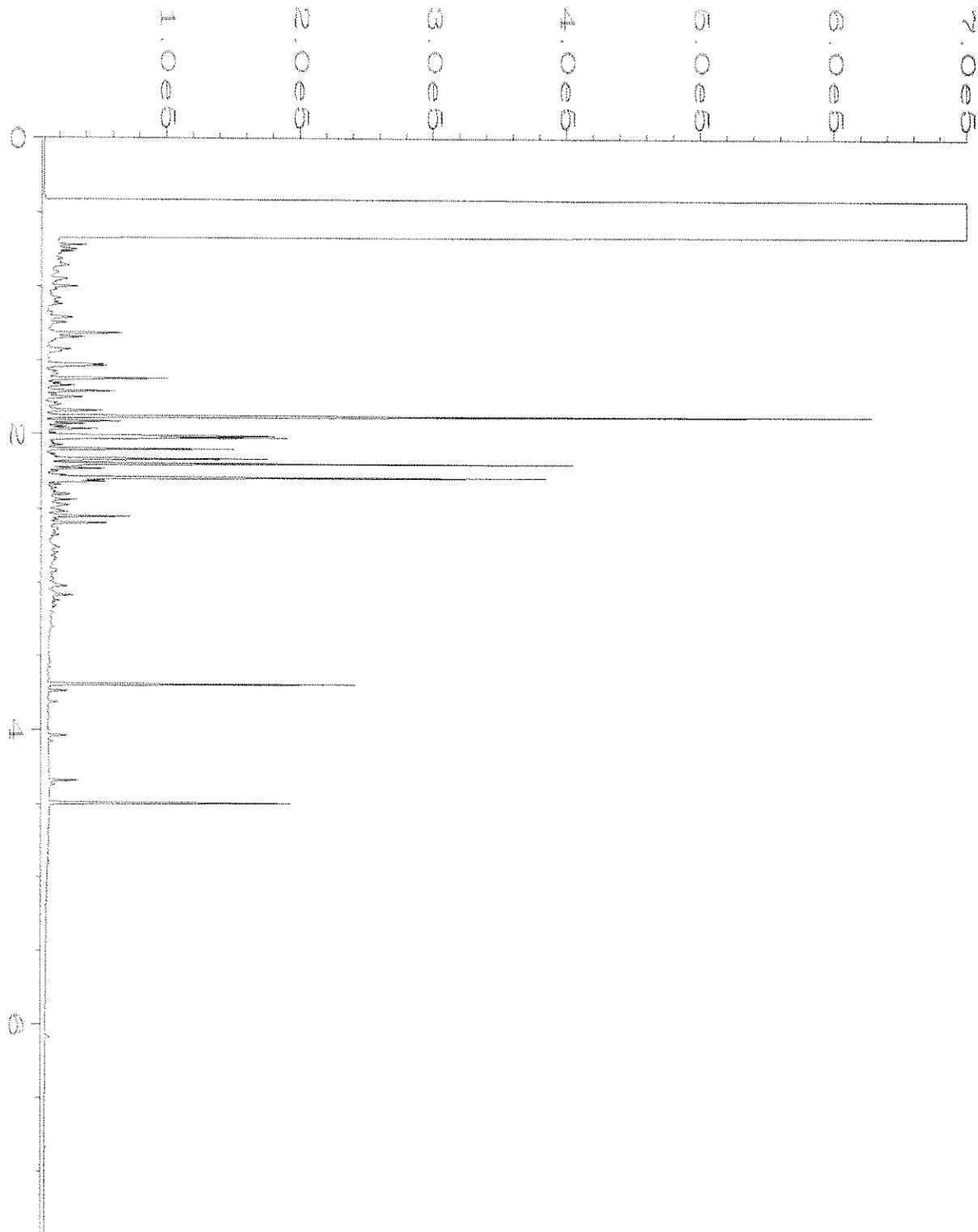
Seattle, WA 98119-2029

Ph. (206) 285-8282

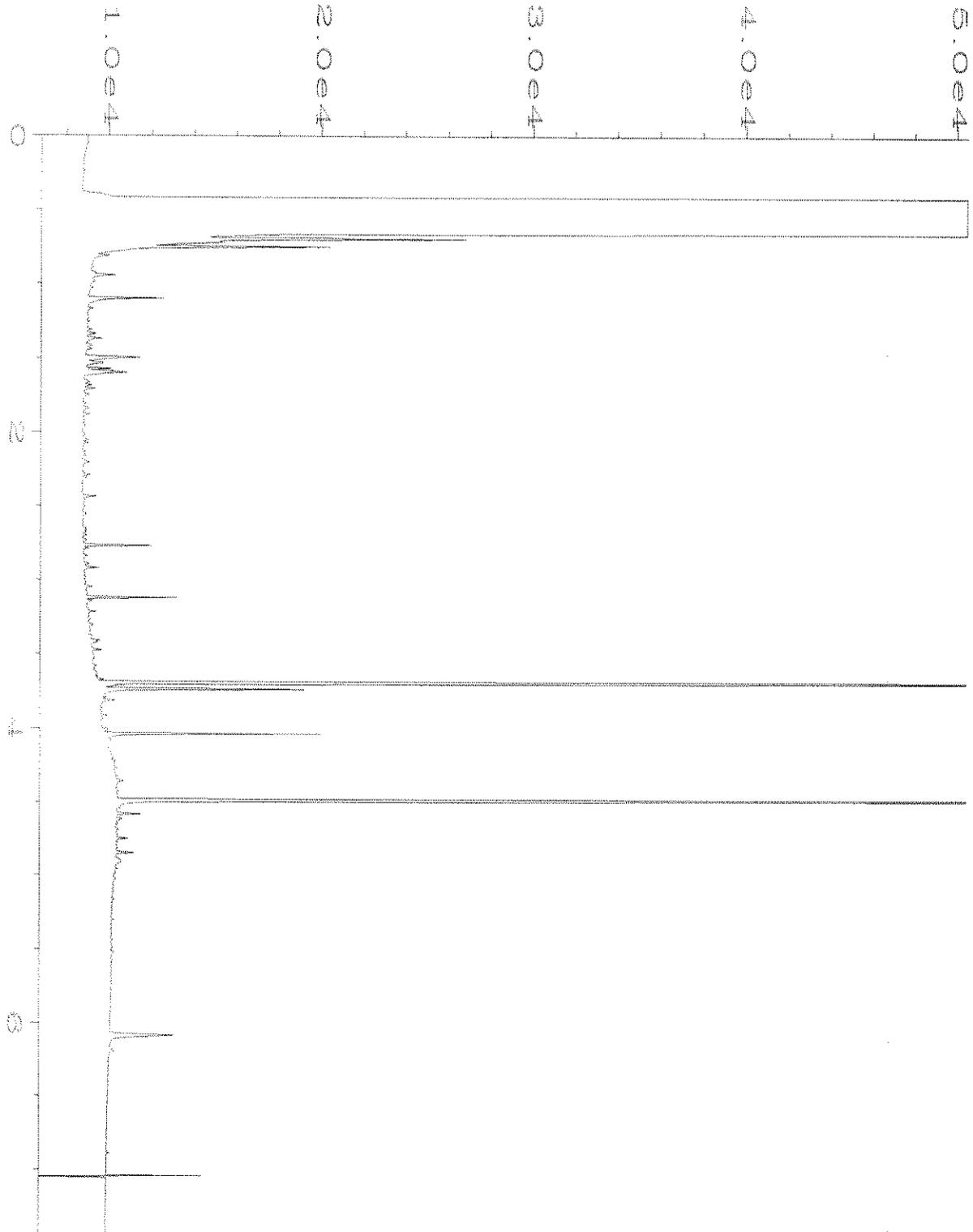
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>Dawn Urick</u>	<u>Aspect Consultants</u>	<u>11/18/20</u>	<u>1448</u>
<u>[Signature]</u>	<u>Norman Pagan</u>	<u>FEBI</u>	<u>11/18/20</u>	<u>1448</u>
Received by:		Samples received at	<u>3</u>	<u>00</u>



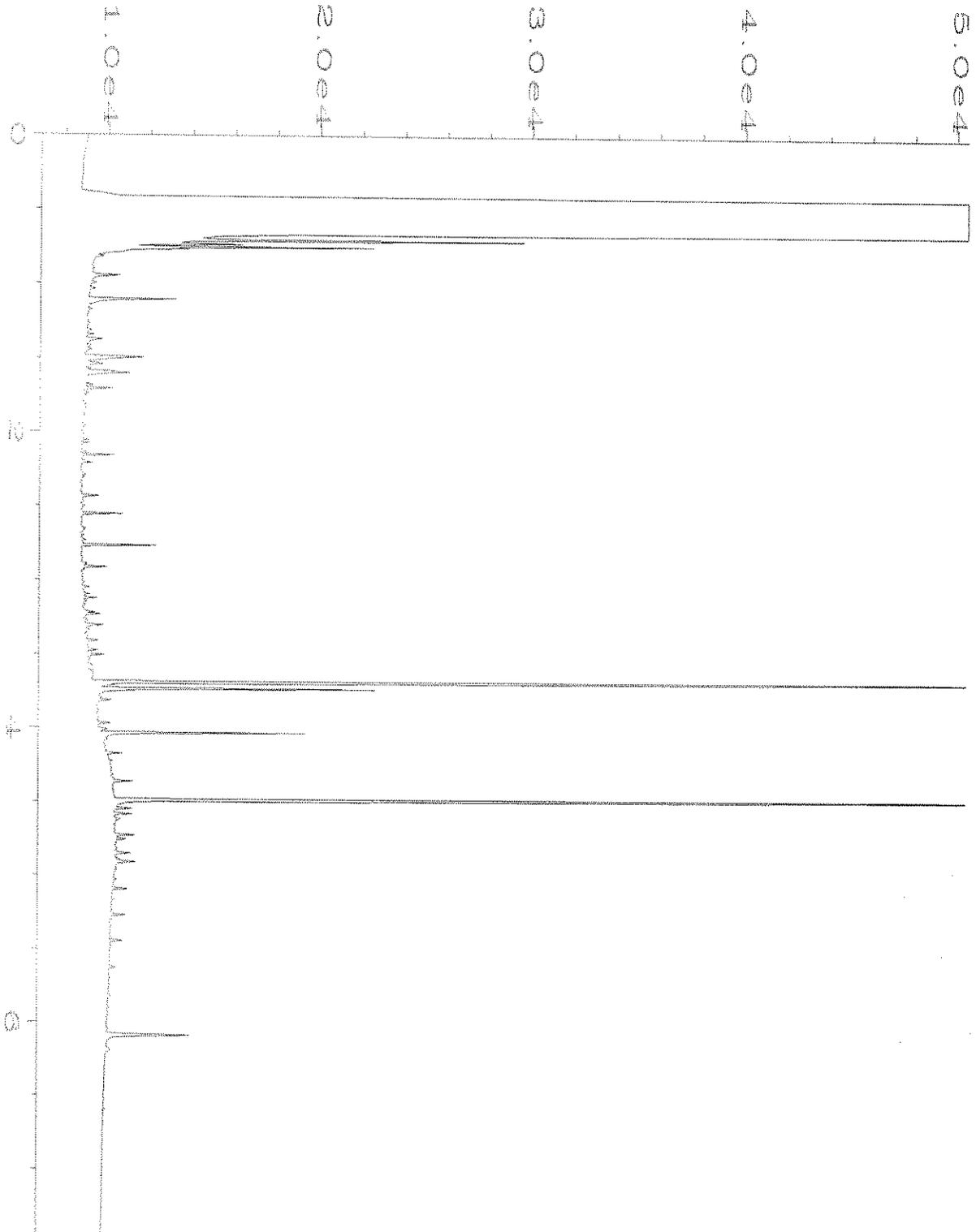
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Sample Name	: 011339-01	Sequence Line	: 6
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Acquired on	: 20 Nov 20 02:51 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:11 AM		



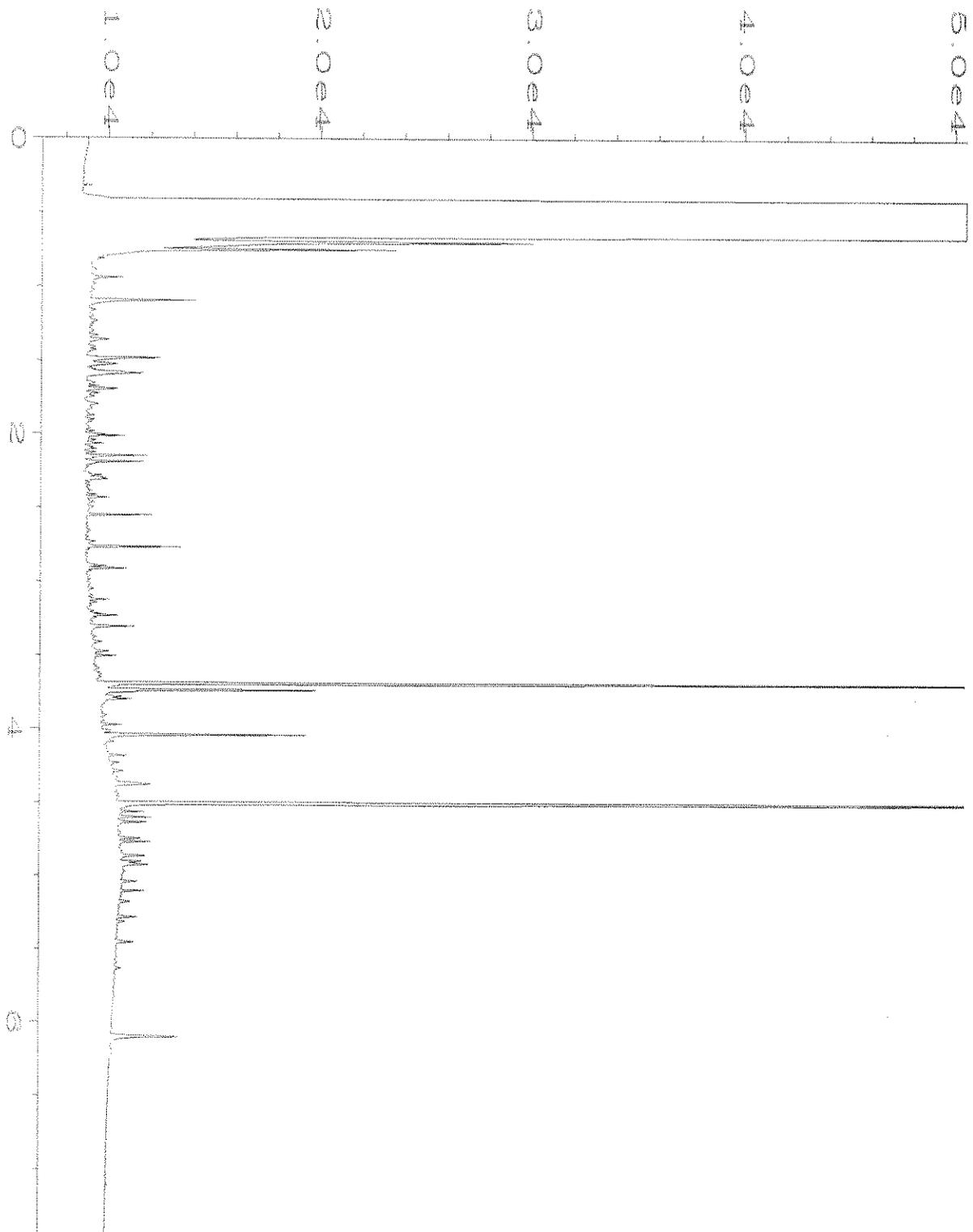
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Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-02	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 03:02 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:11 AM		



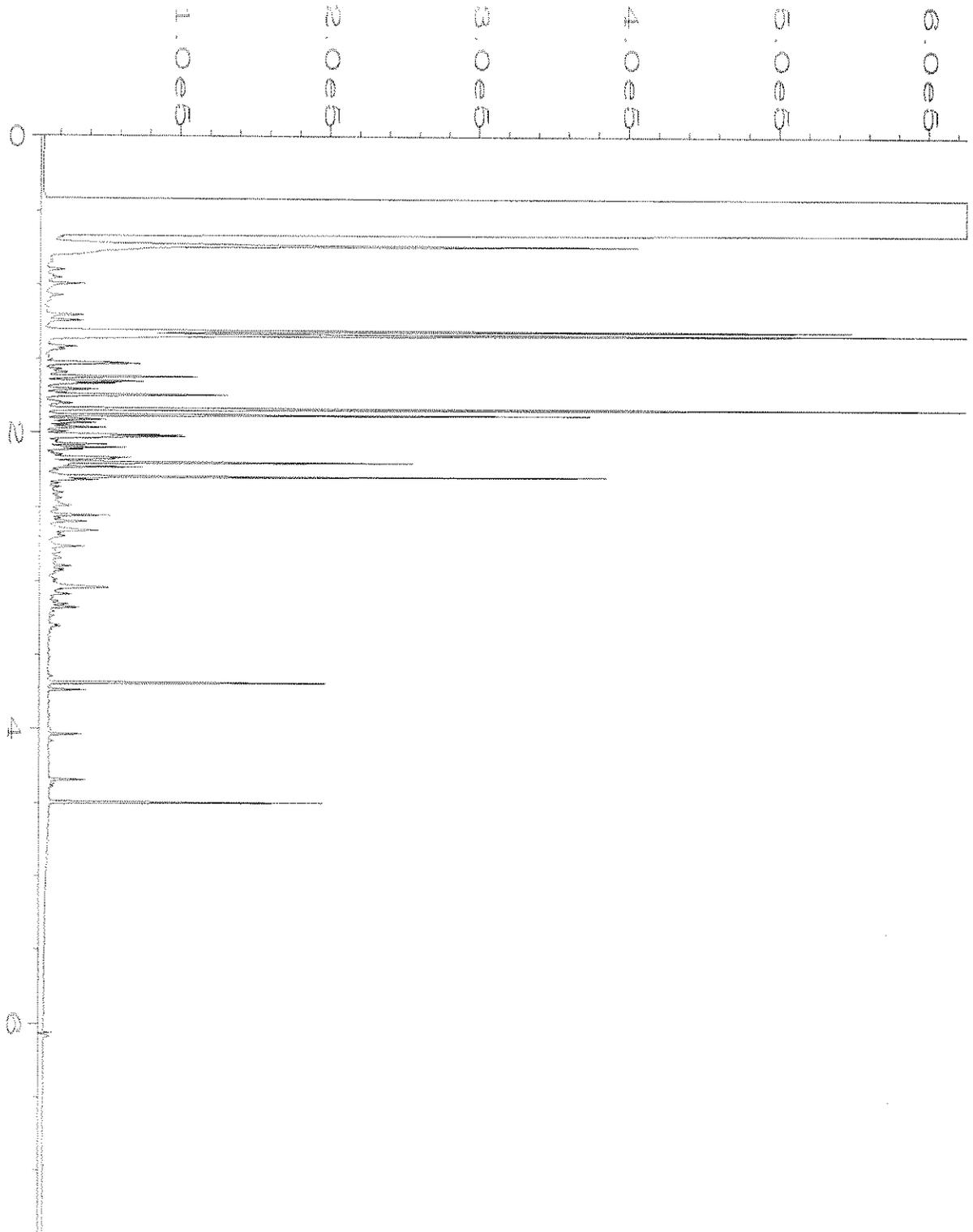
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Report Created on:	23 Nov 20 09:11 AM		



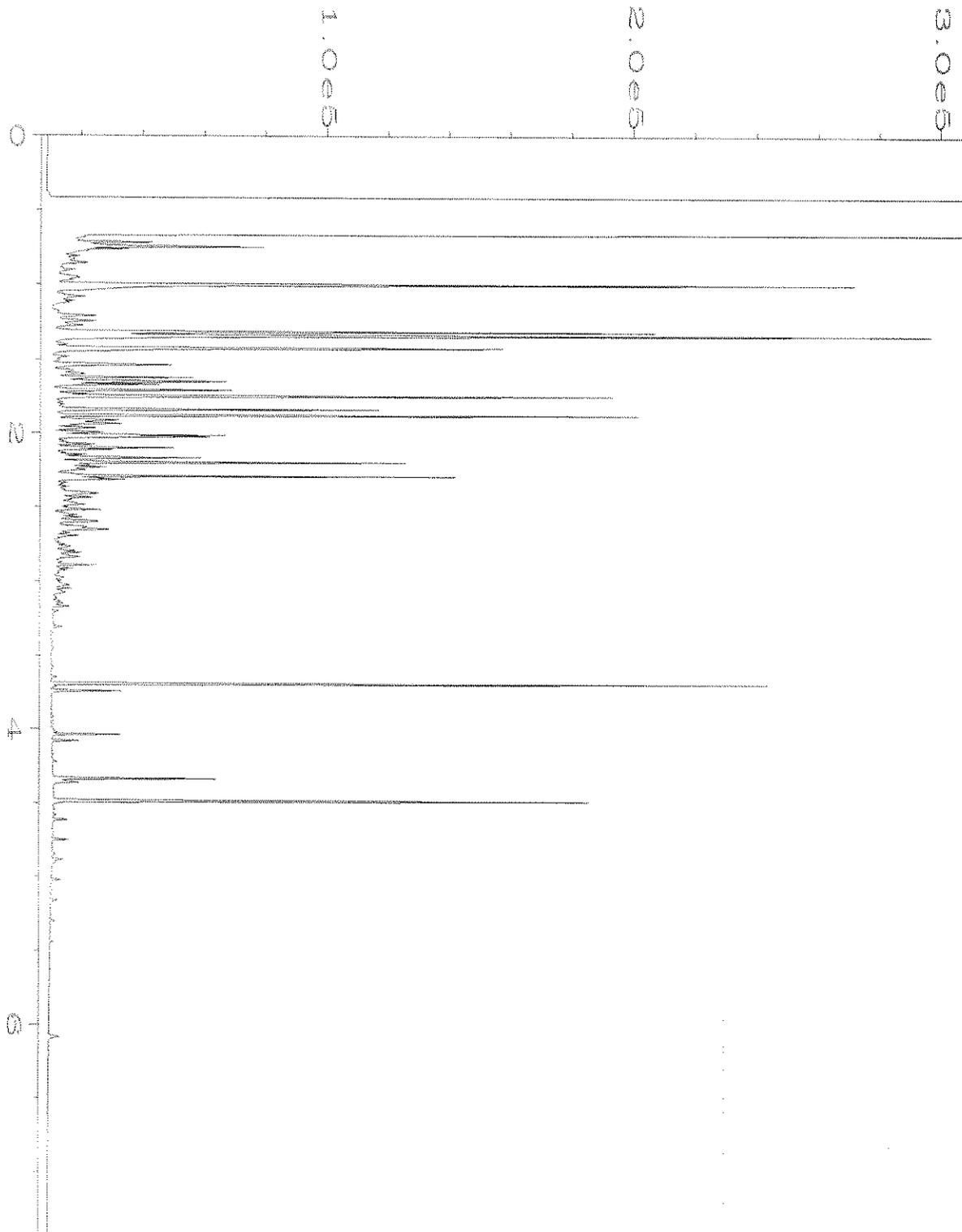
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Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-04	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 03:25 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:12 AM		



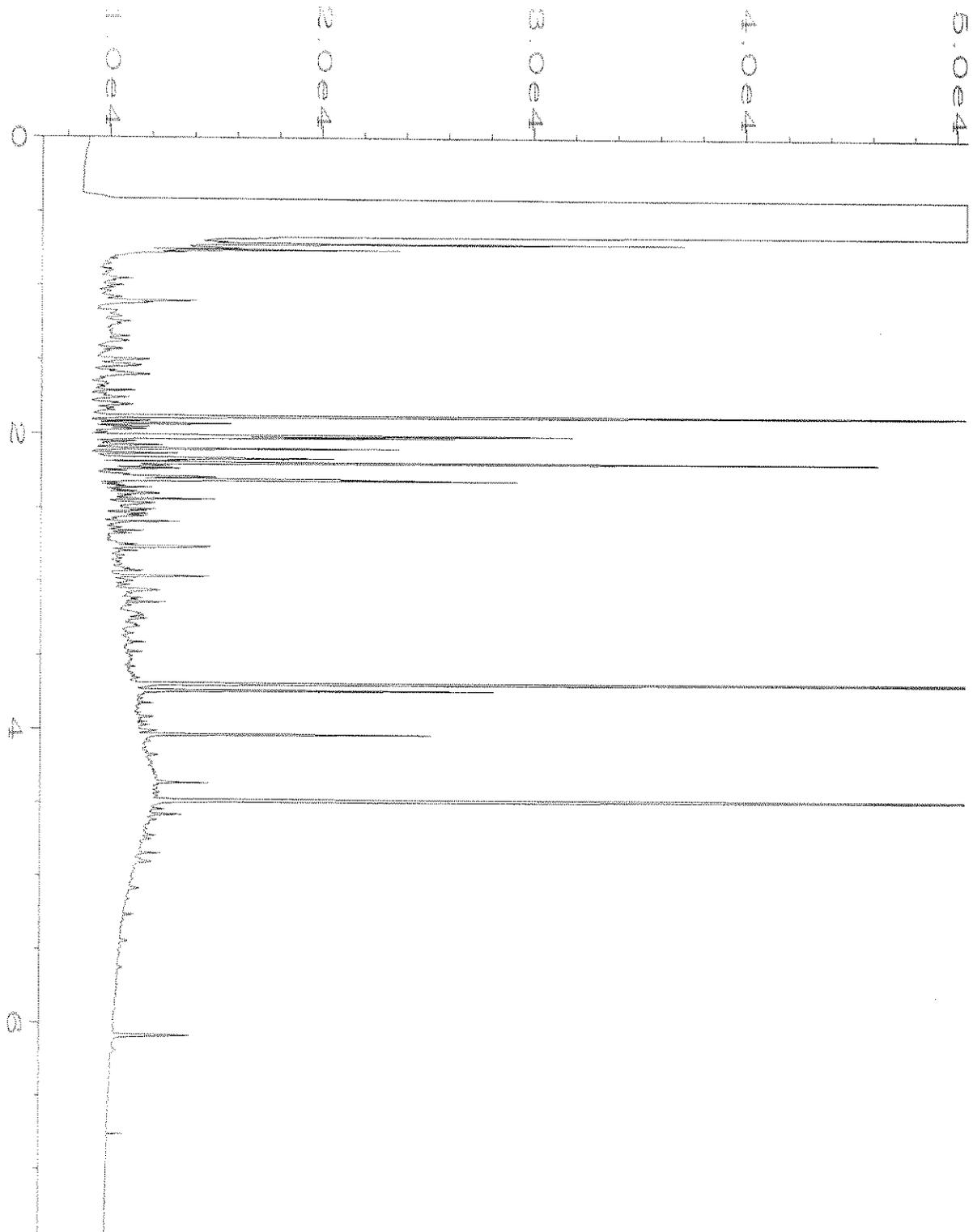
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Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-05	Sequence Line	: 8
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Report Created on:	23 Nov 20 09:12 AM		



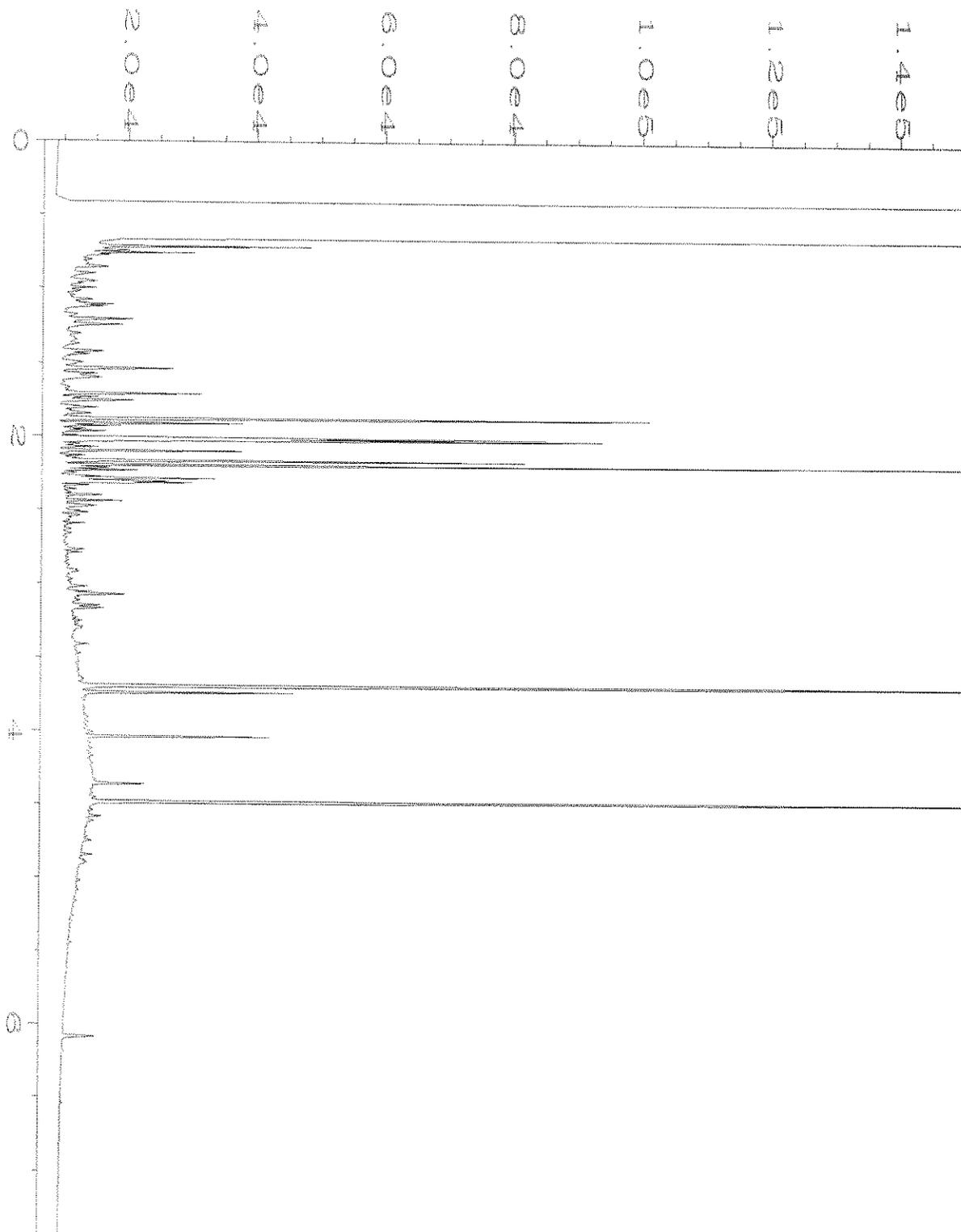
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Operator	: TL	Vial Number	: 30
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-06	Sequence Line	: 8
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 20 Nov 20 04:19 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:12 AM		



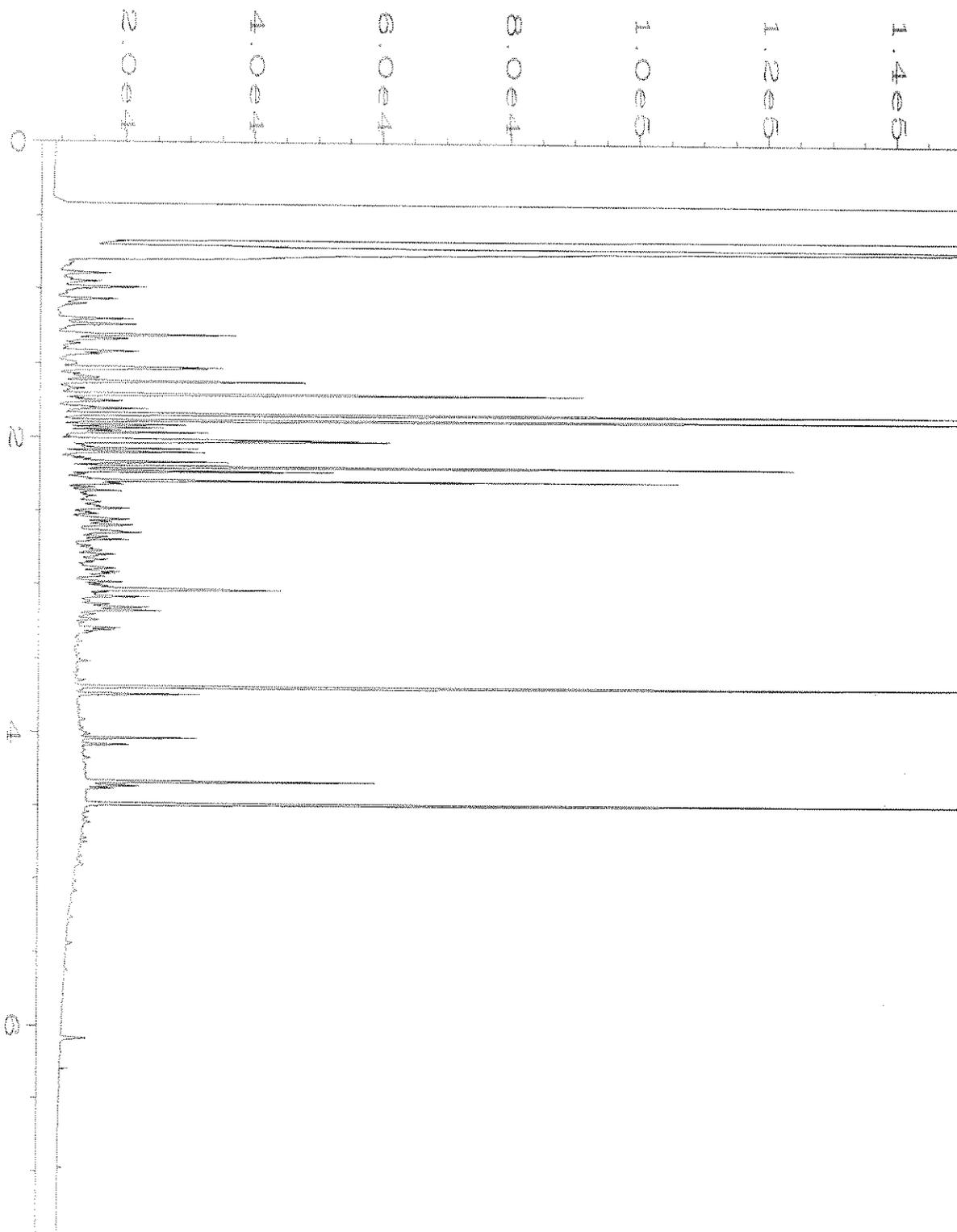
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Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-07	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 04:30 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:12 AM		



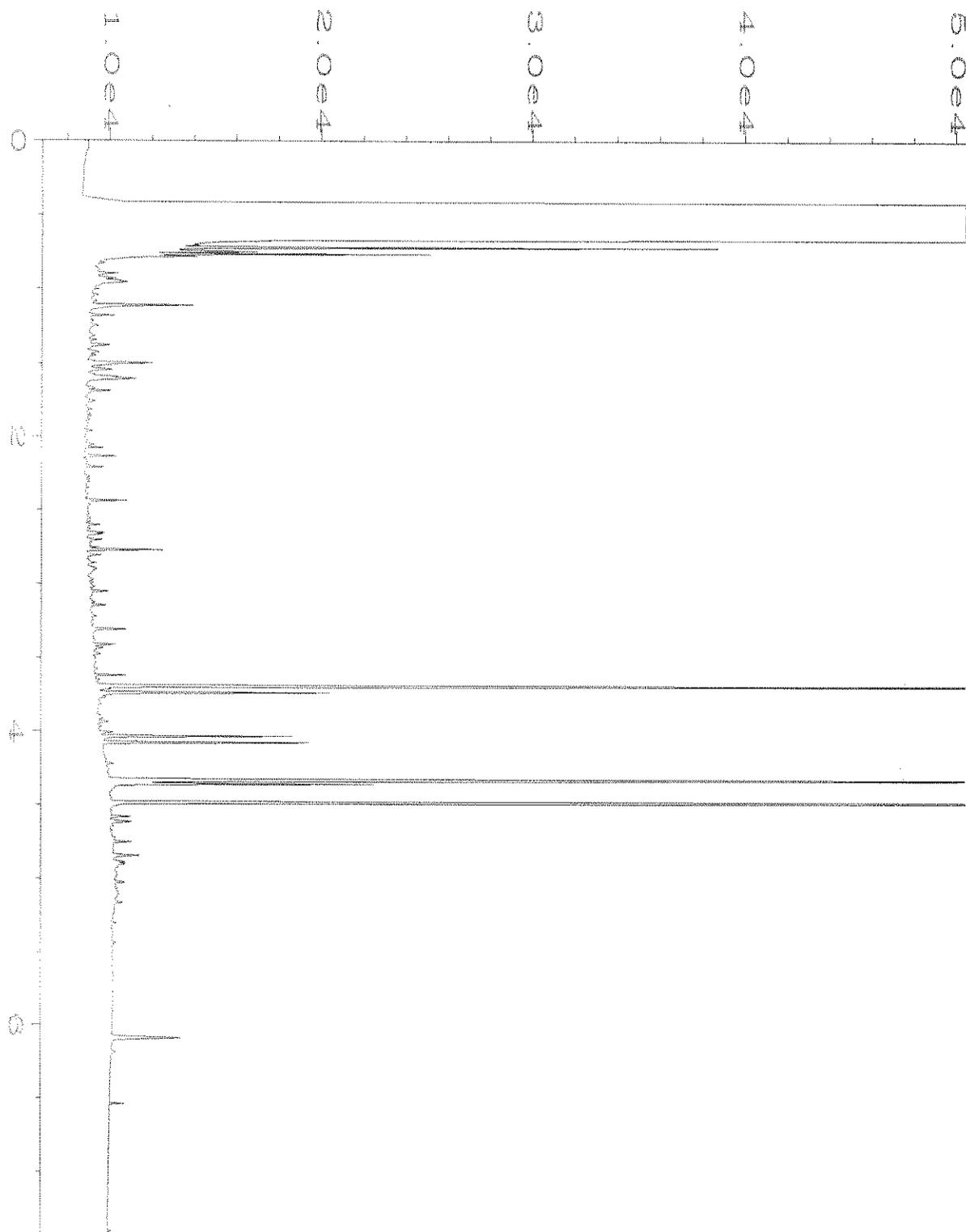
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Operator	: TL	Vial Number	: 32
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-08	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 04:41 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:12 AM		



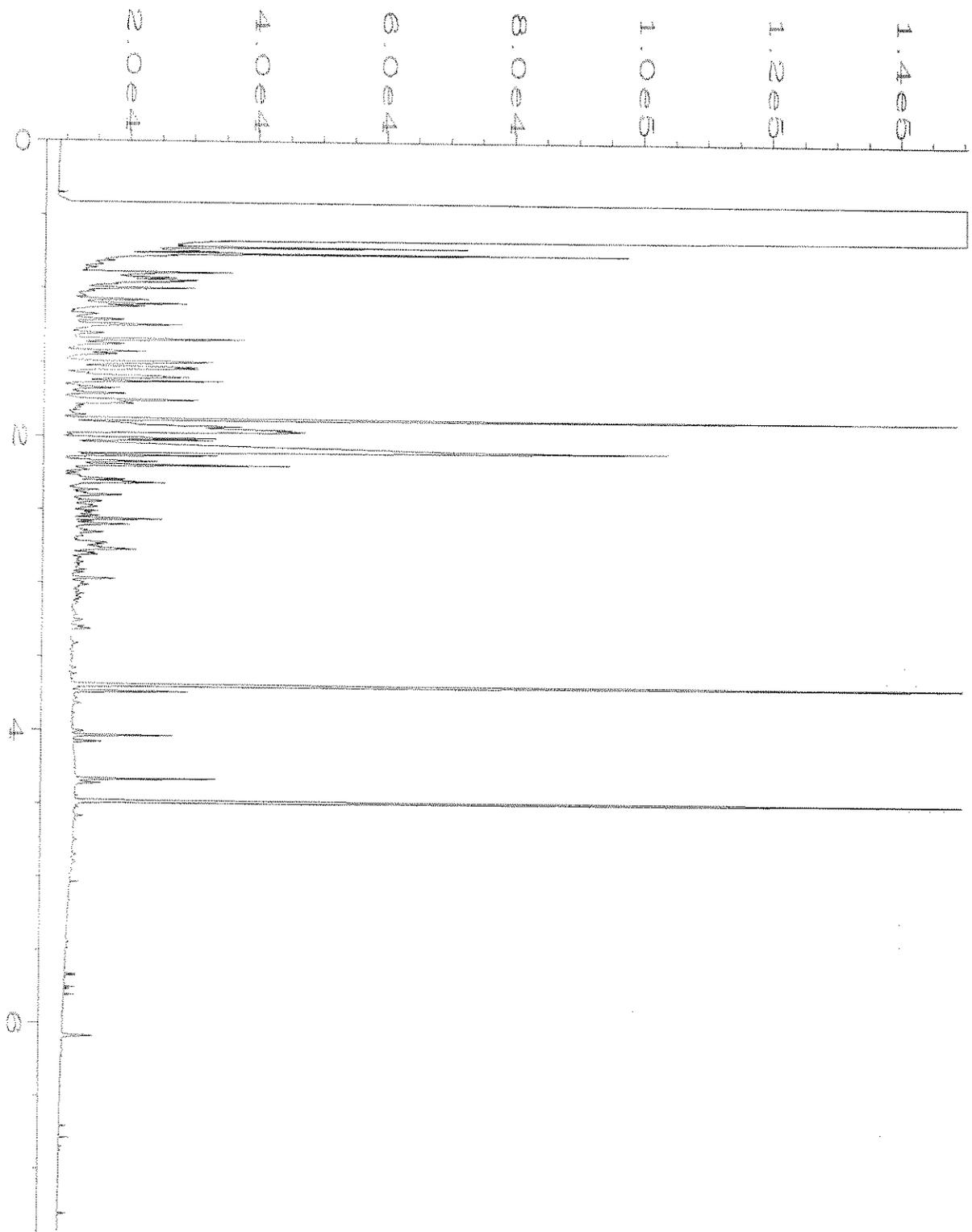
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\033F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 33
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-09	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 04:53 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:13 AM		



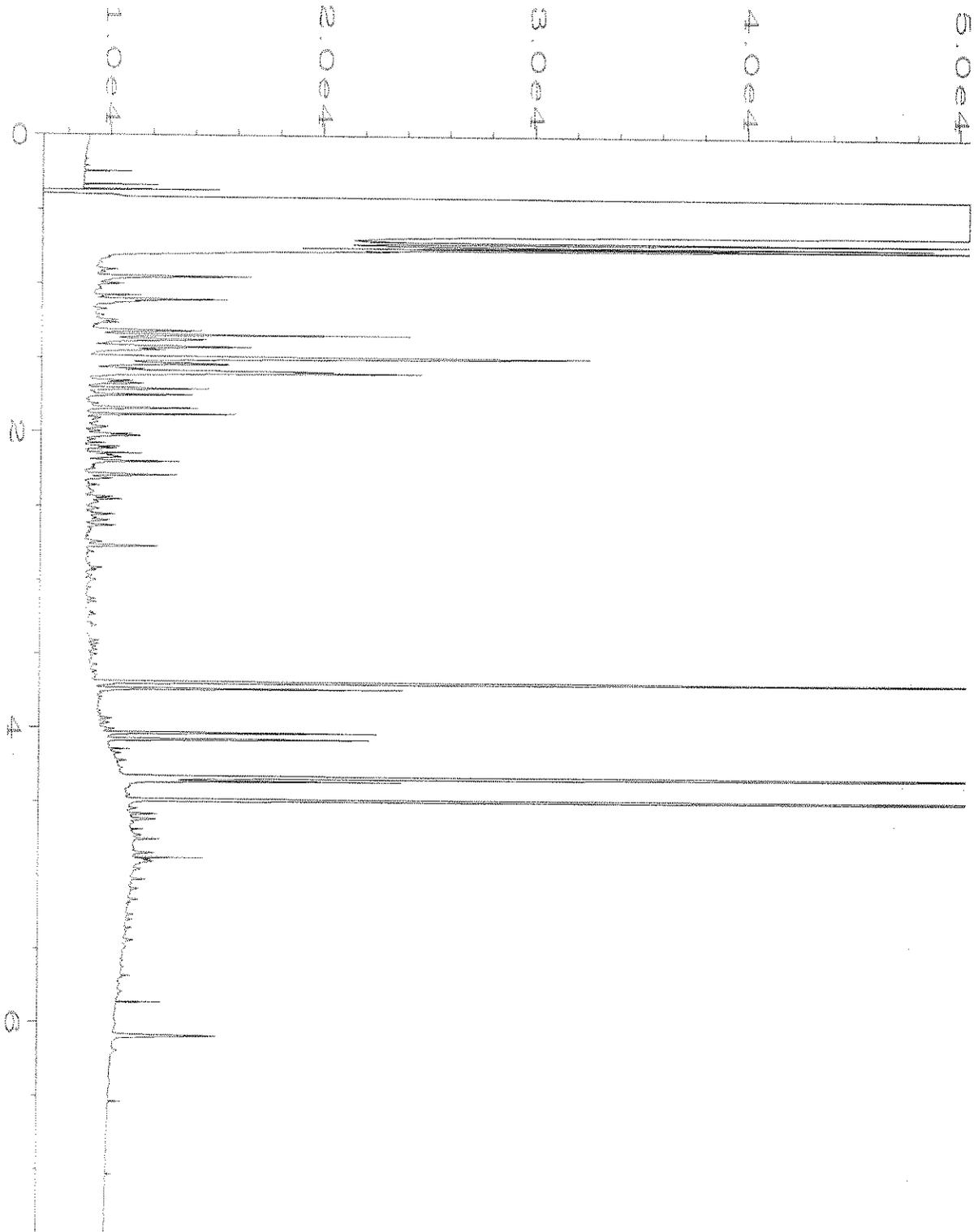
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\034F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 34
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-10	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 05:04 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:13 AM		



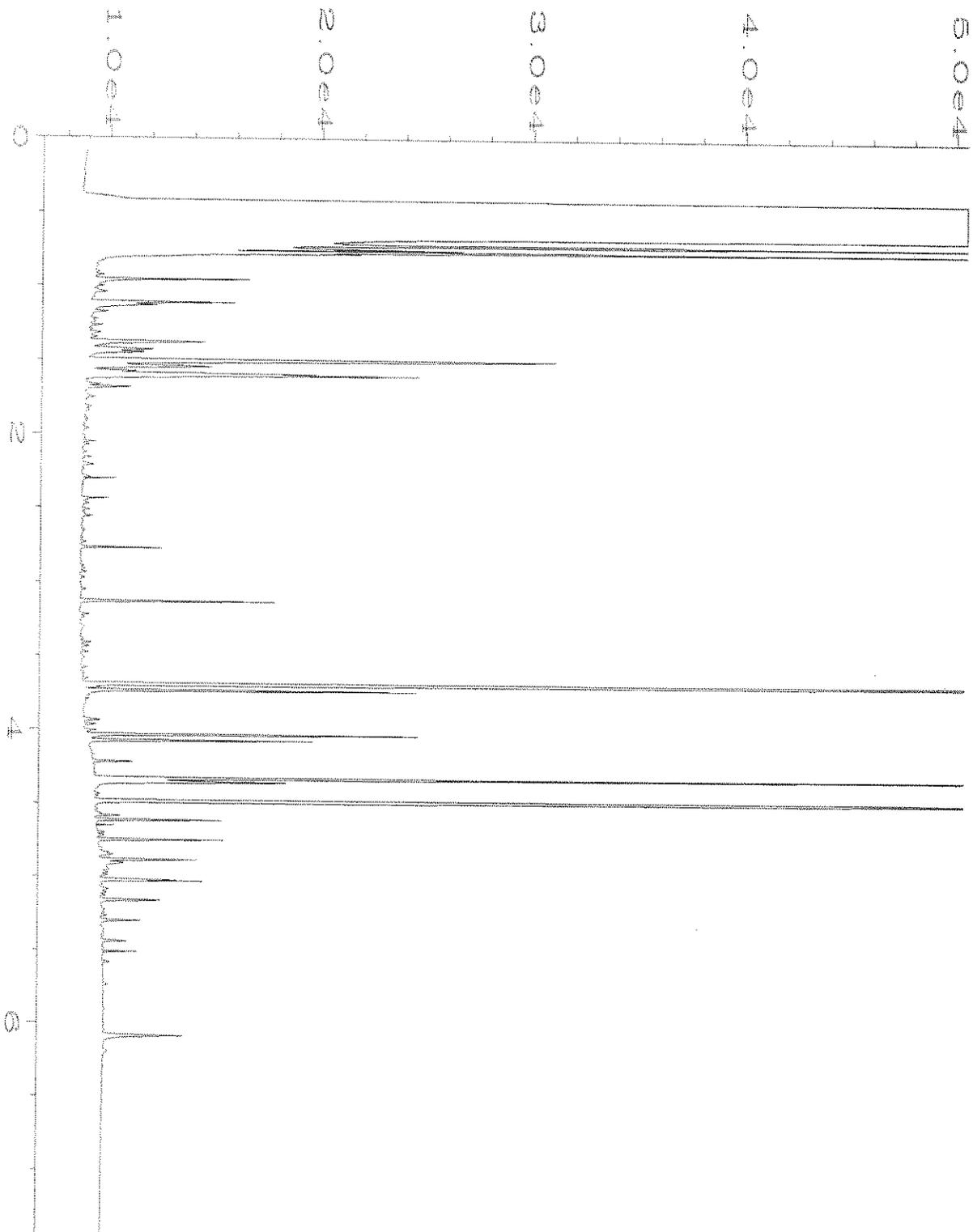
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\035F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 35
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-11	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 05:16 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:13 AM		



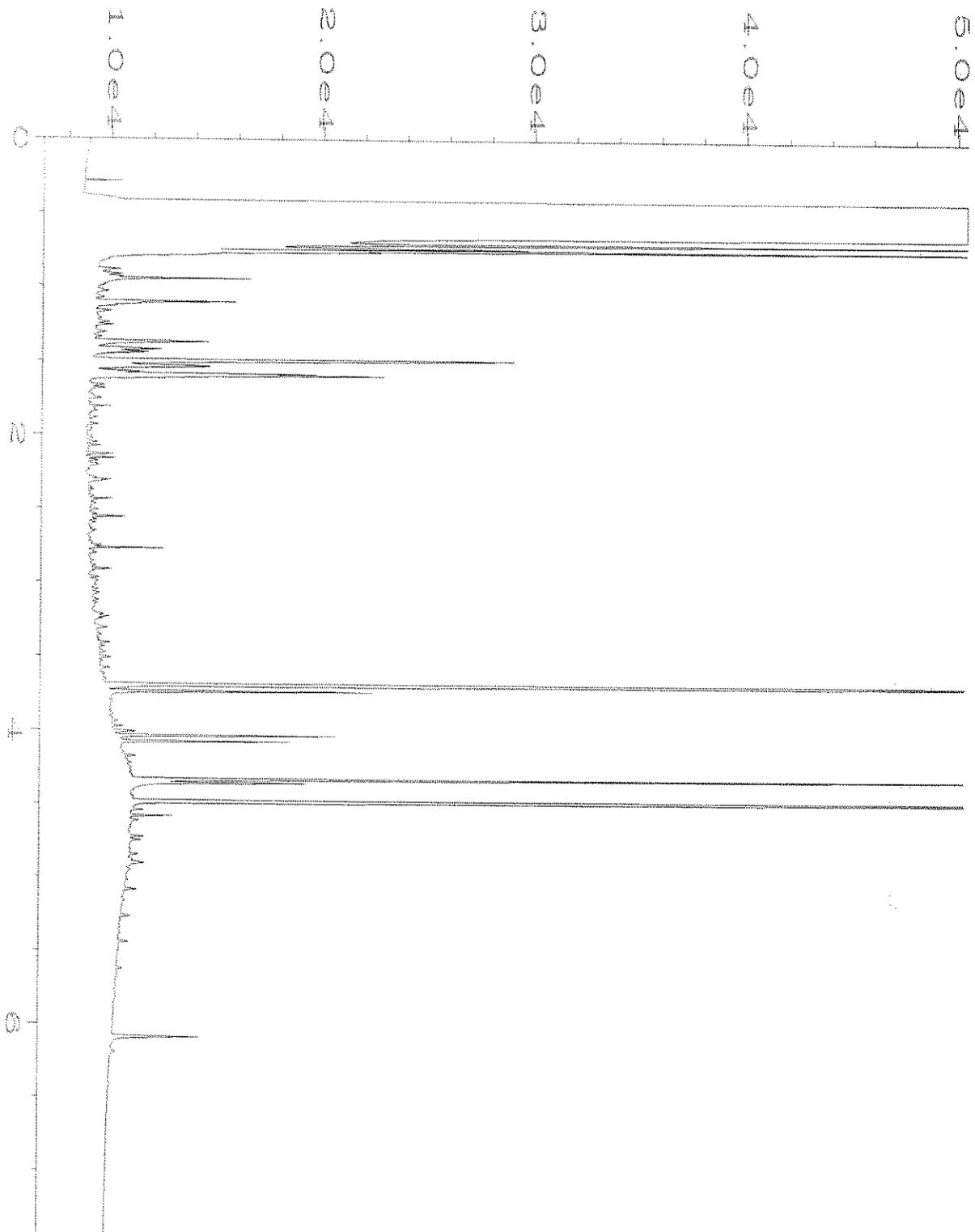
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\036F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 36
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-12	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 05:27 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:13 AM		



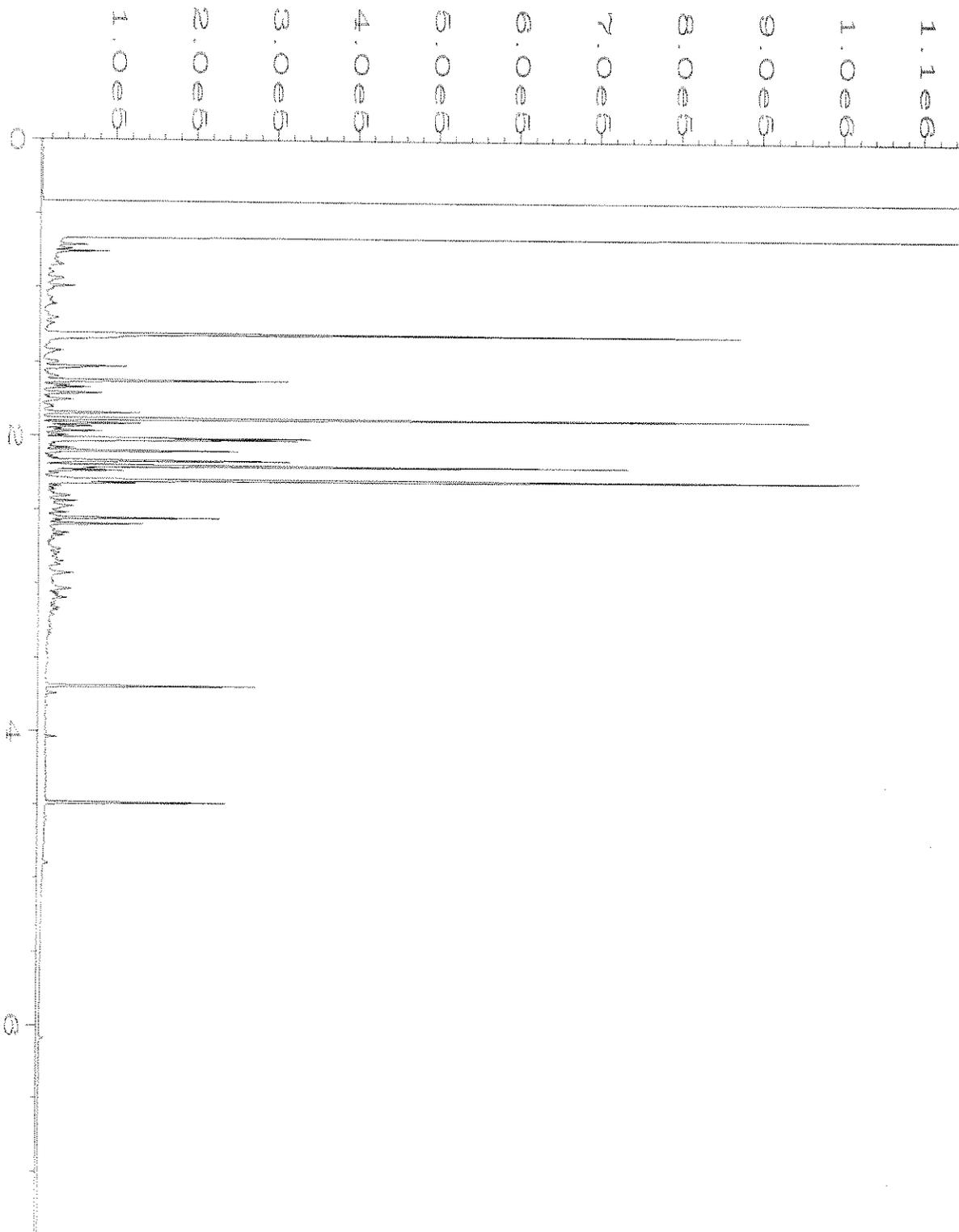
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\037F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 37
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-13	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 05:39 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:13 AM		



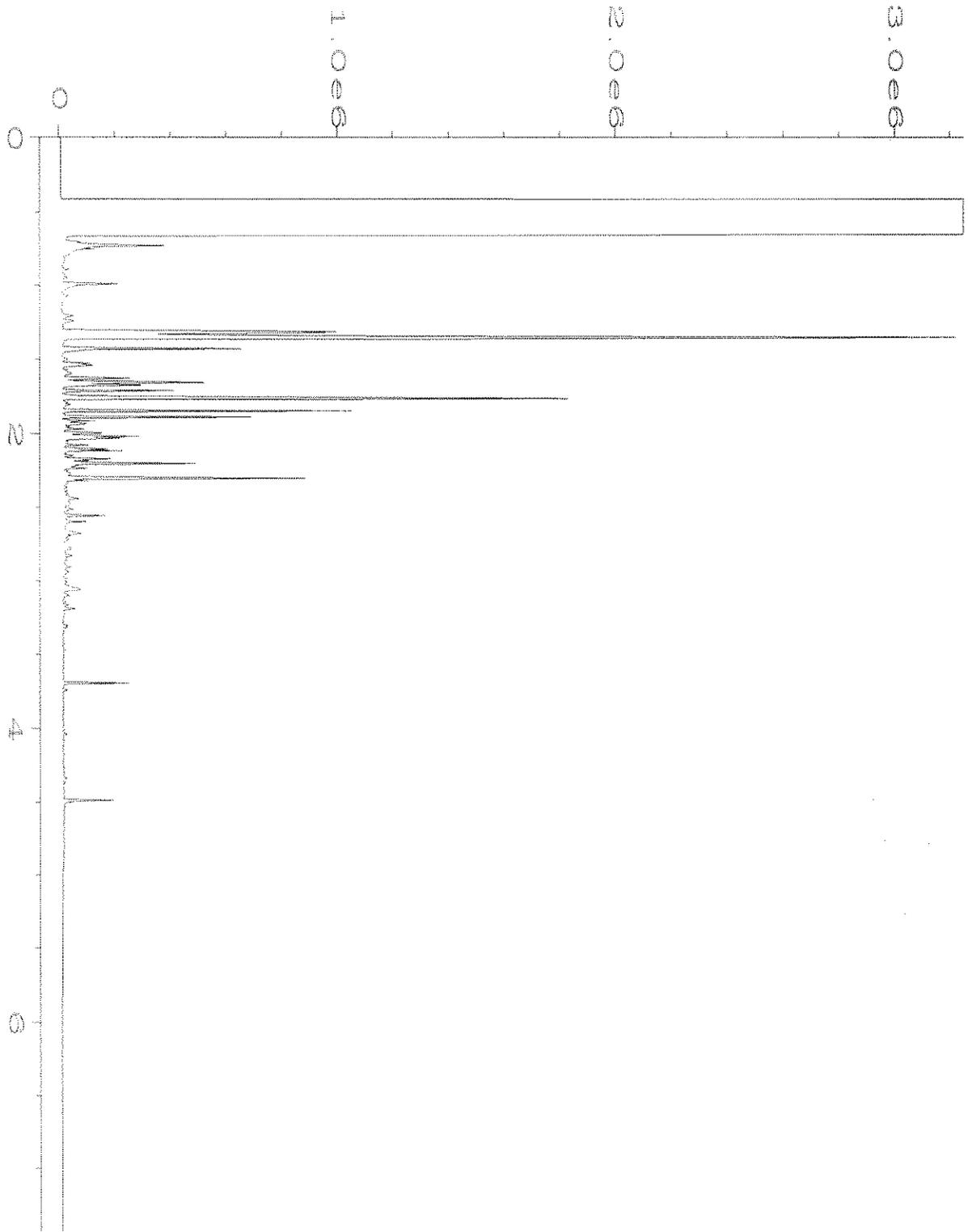
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\038F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 38
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-14	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 05:50 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:13 AM		



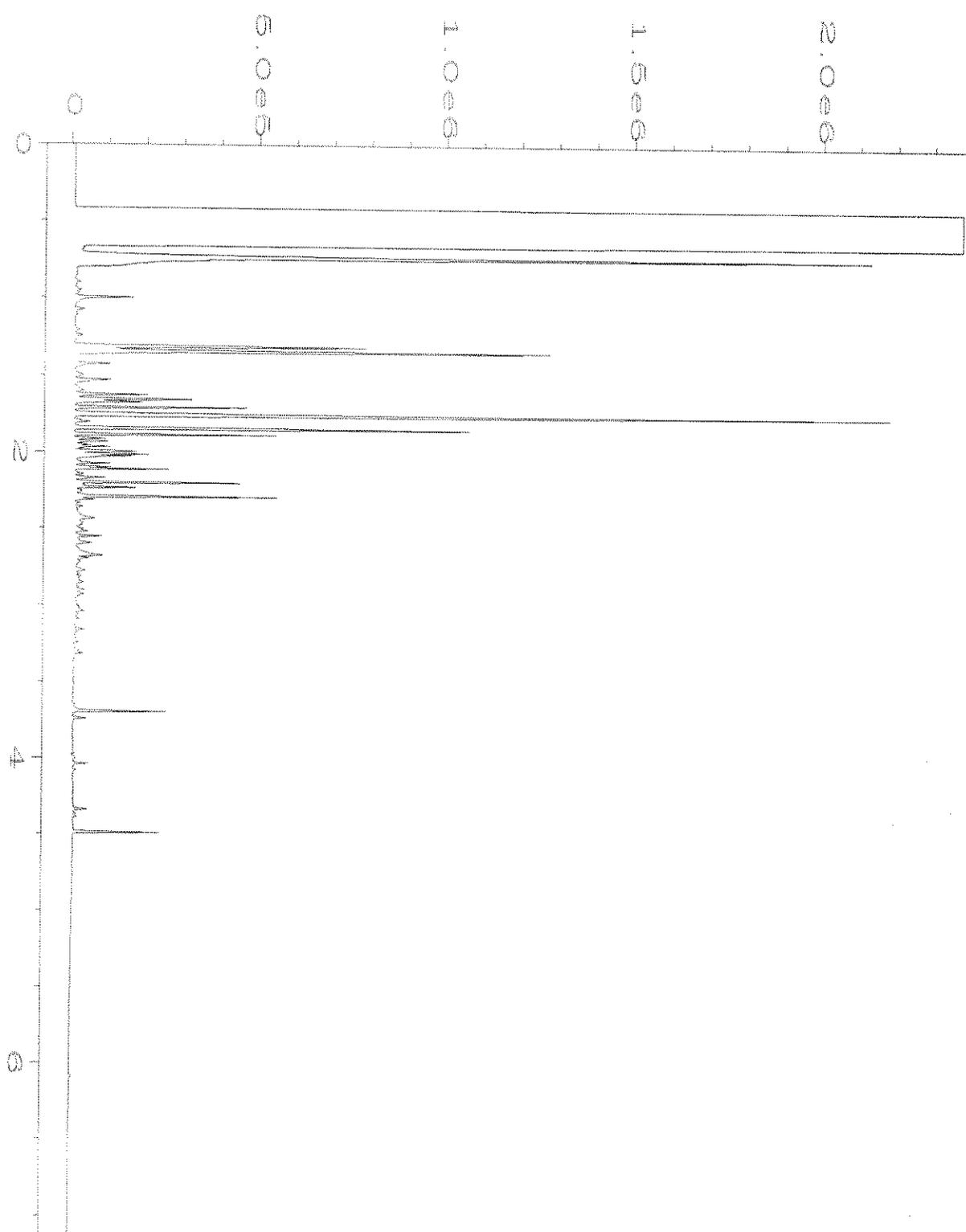
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\039F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 39
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-15	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 06:02 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:14 AM		



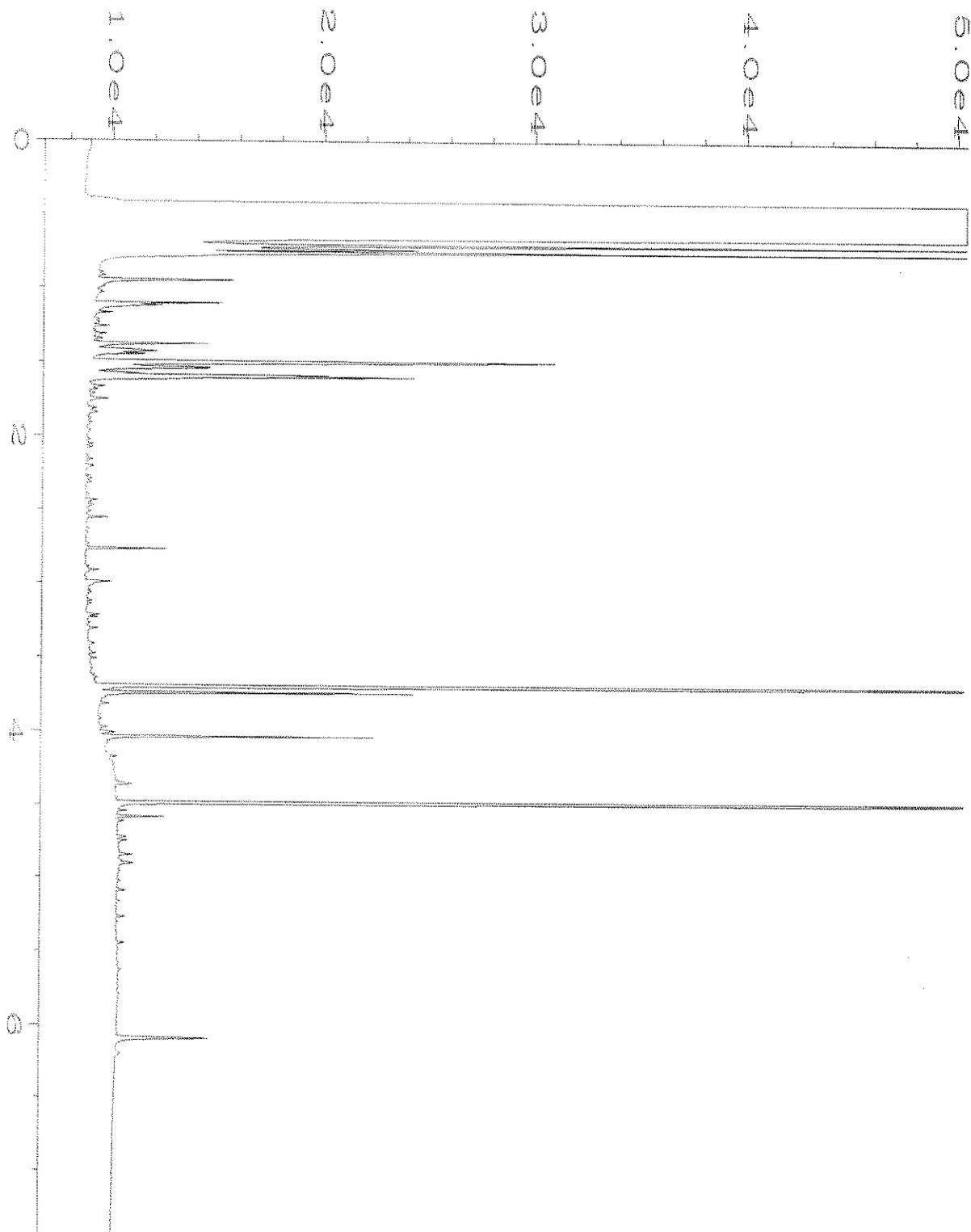
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\040F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 40
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-16	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 06:13 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:14 AM		



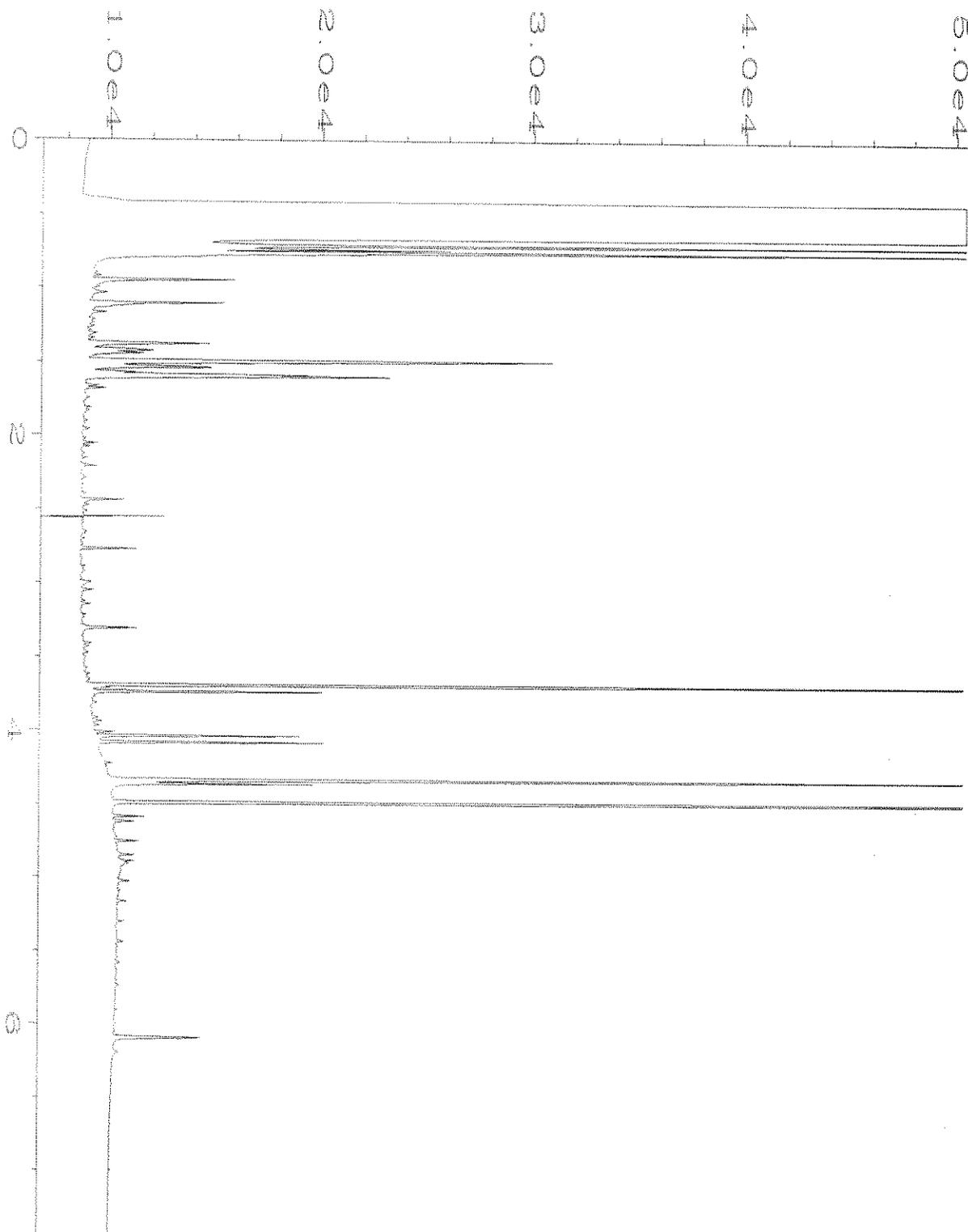
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\041F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 41
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-17	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 06:24 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:14 AM		



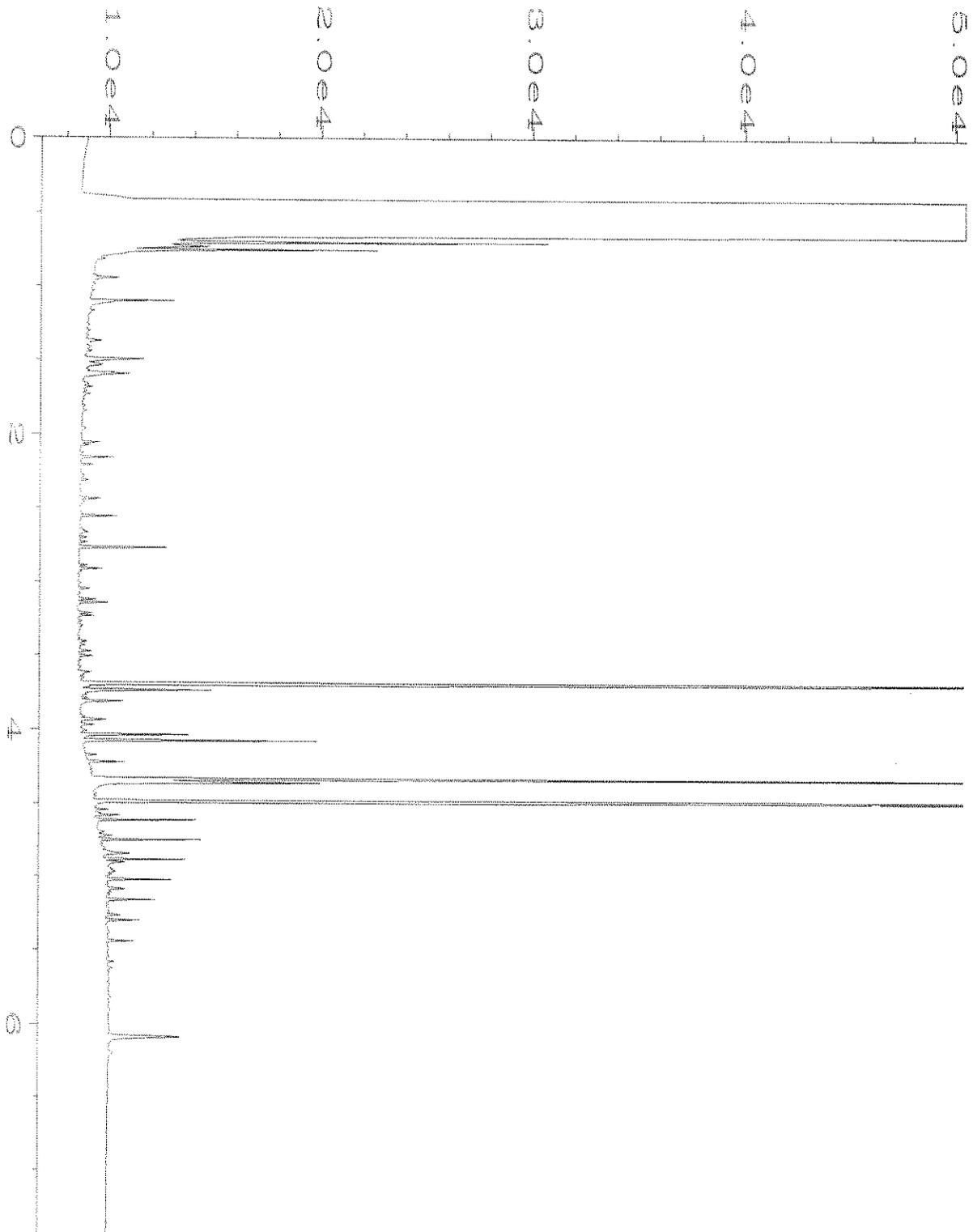
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\042F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 42
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-18	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 06:36 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:15 AM		



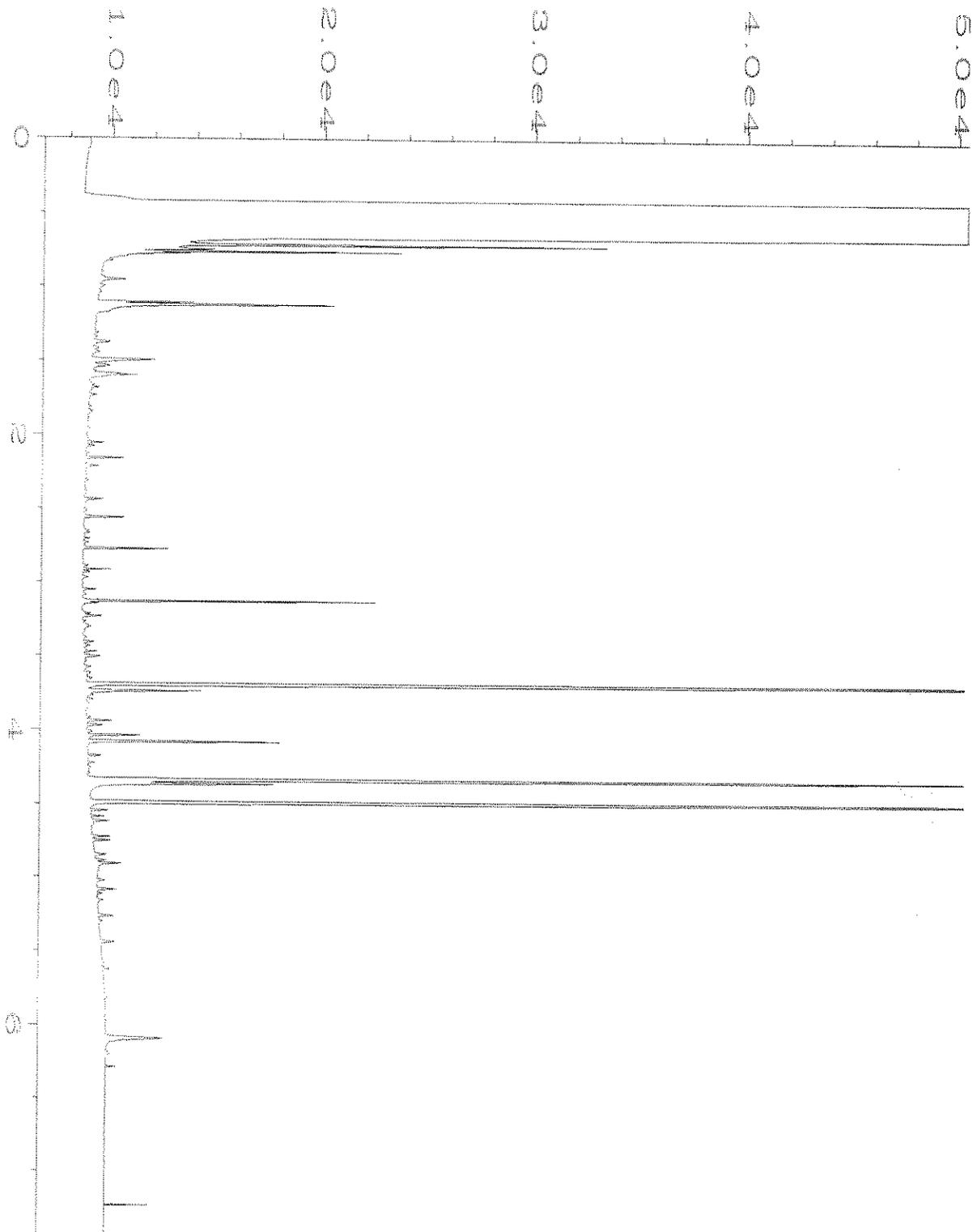
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\043F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 43
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-19	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 06:47 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:15 AM		



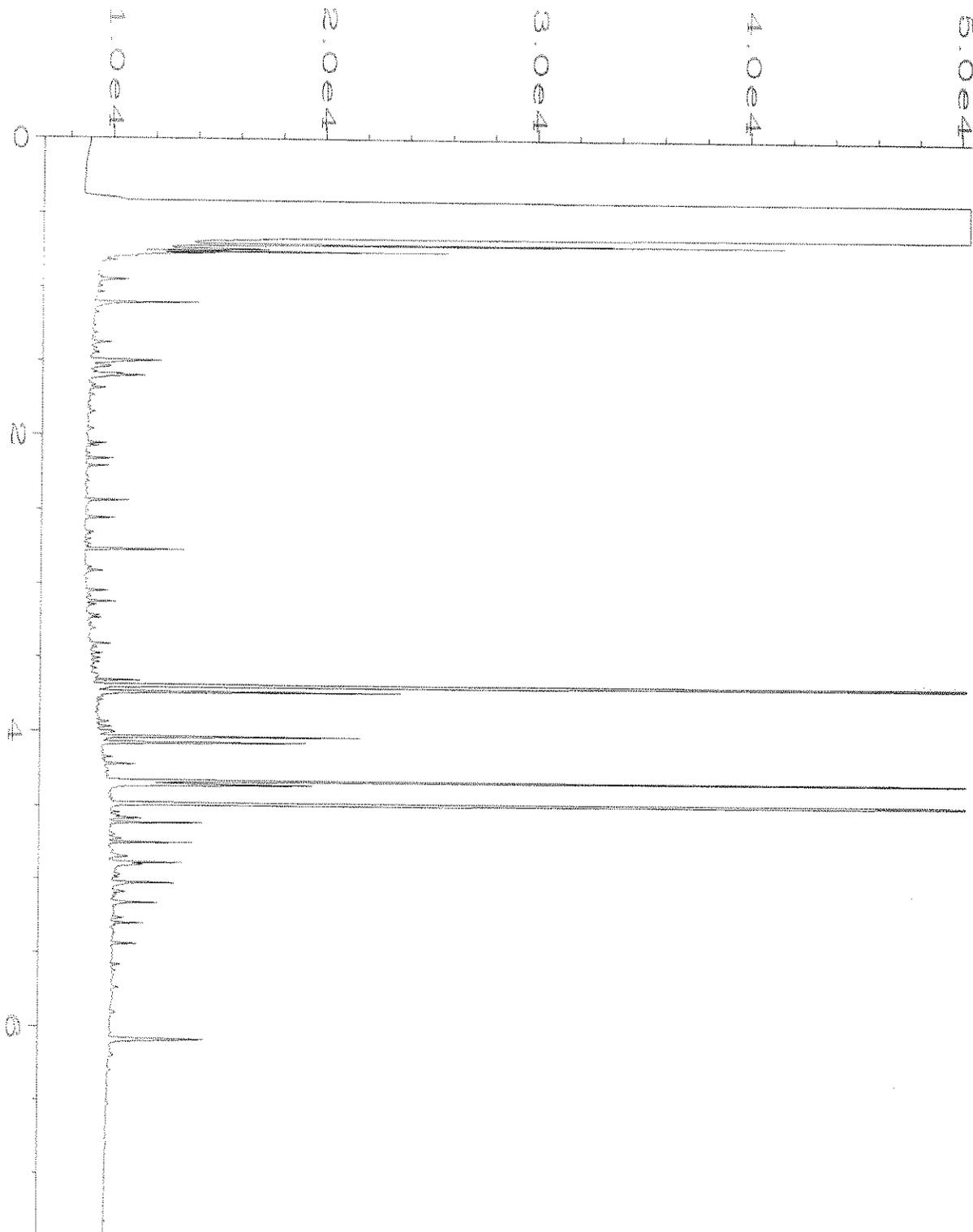
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\044F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 44
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-20	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 06:59 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:15 AM		



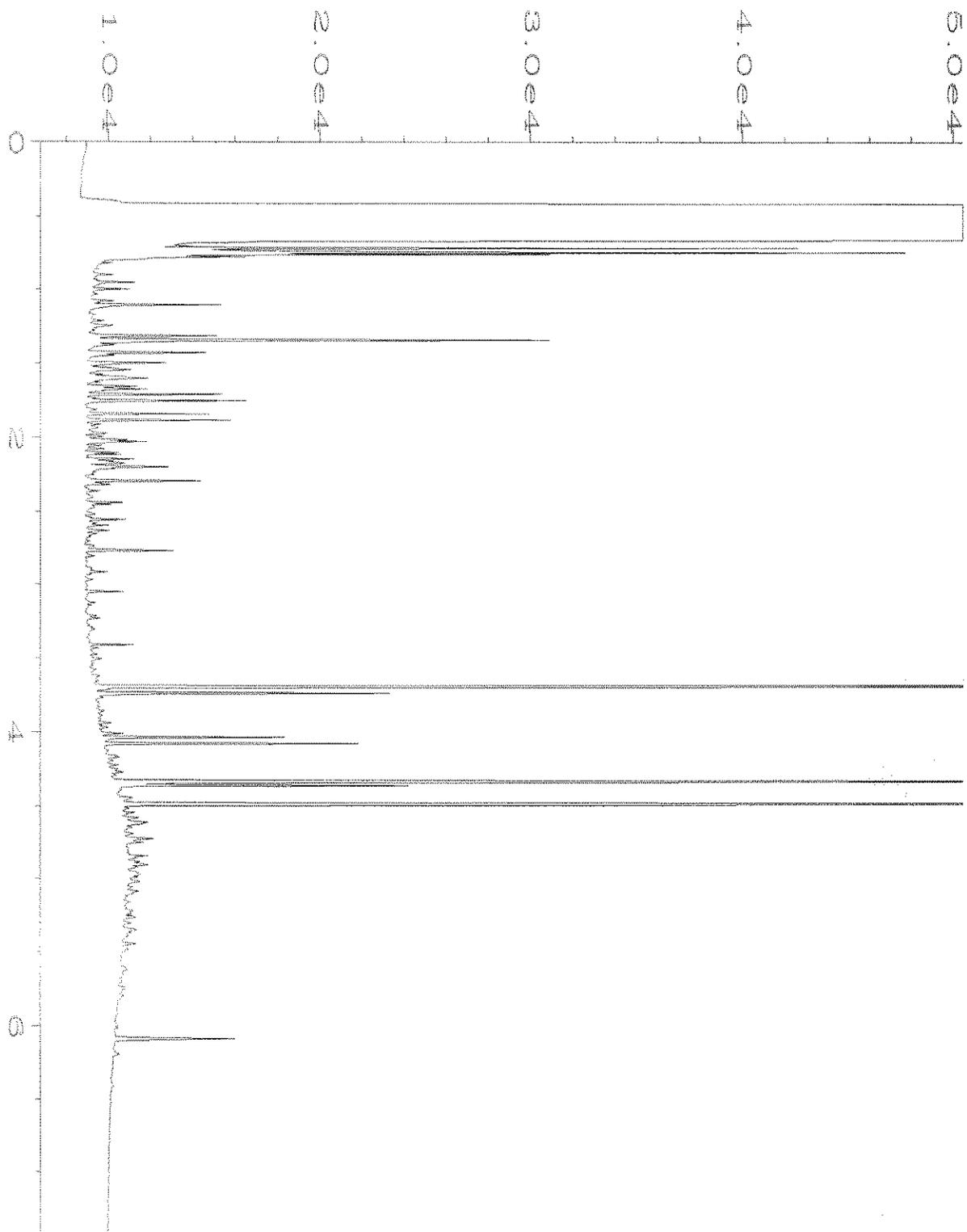
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\046F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 46
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-21	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 07:22 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:16 AM		



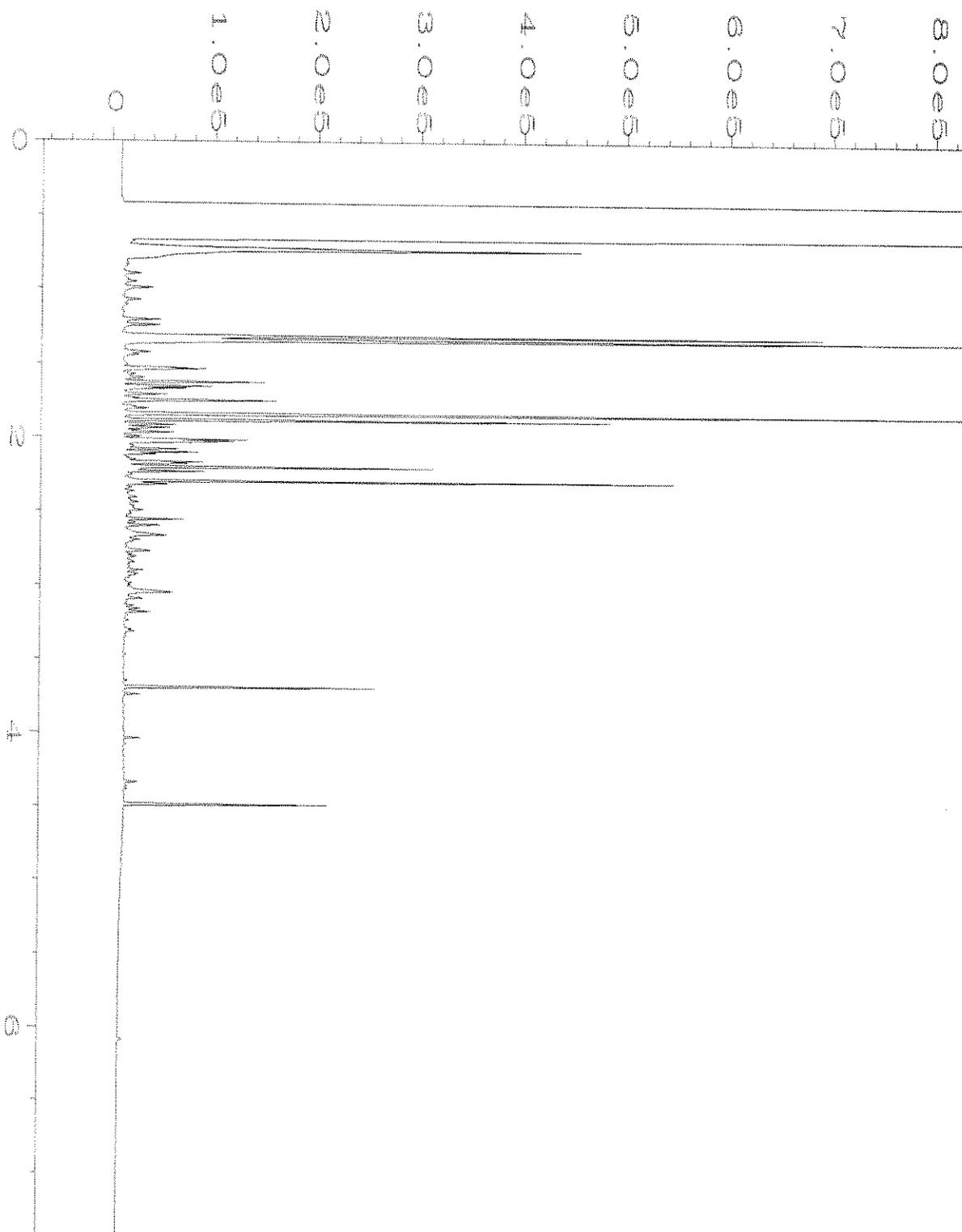
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\047F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 47
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-22	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 07:33 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:16 AM		



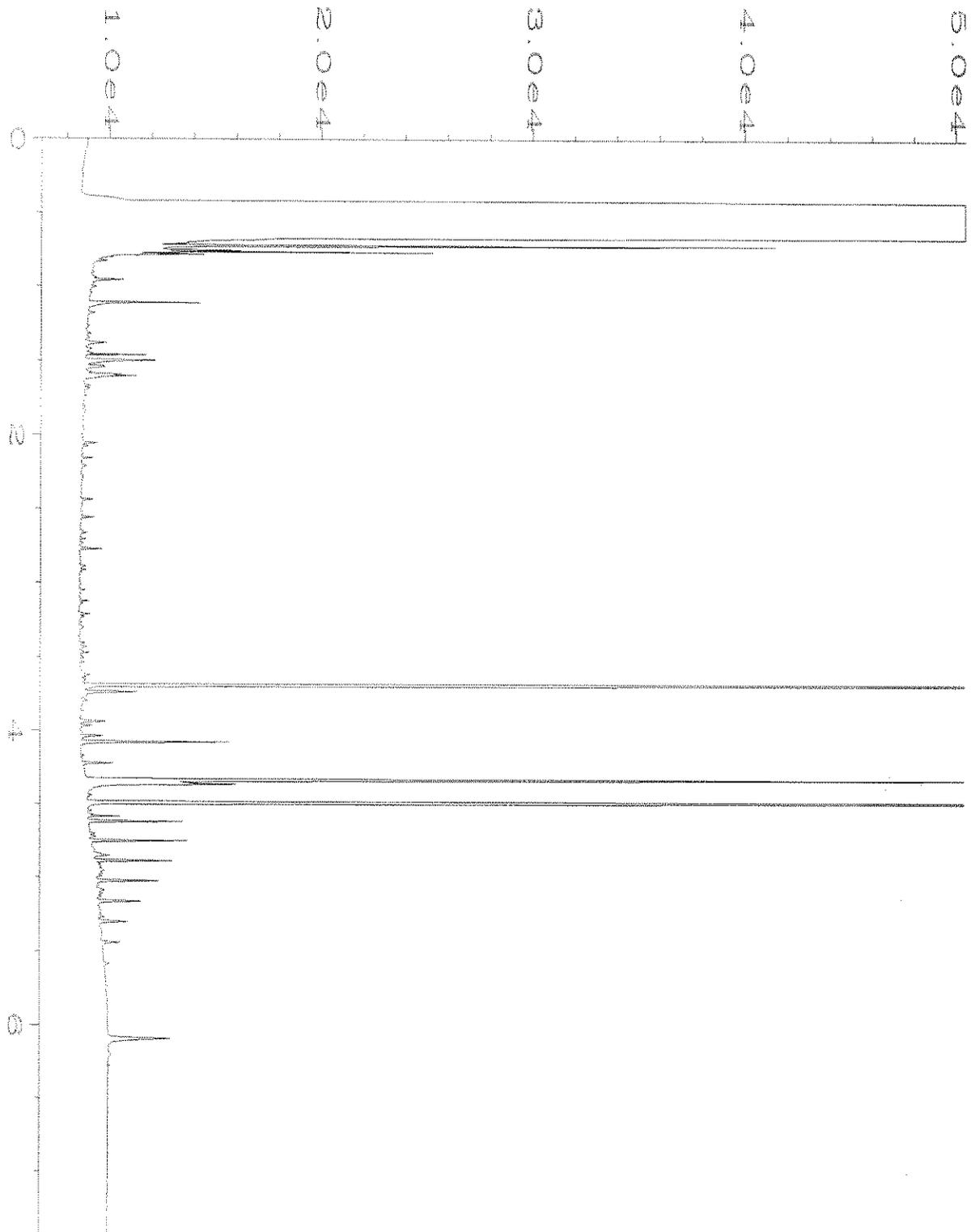
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\048F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 48
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-23	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 07:45 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:17 AM		



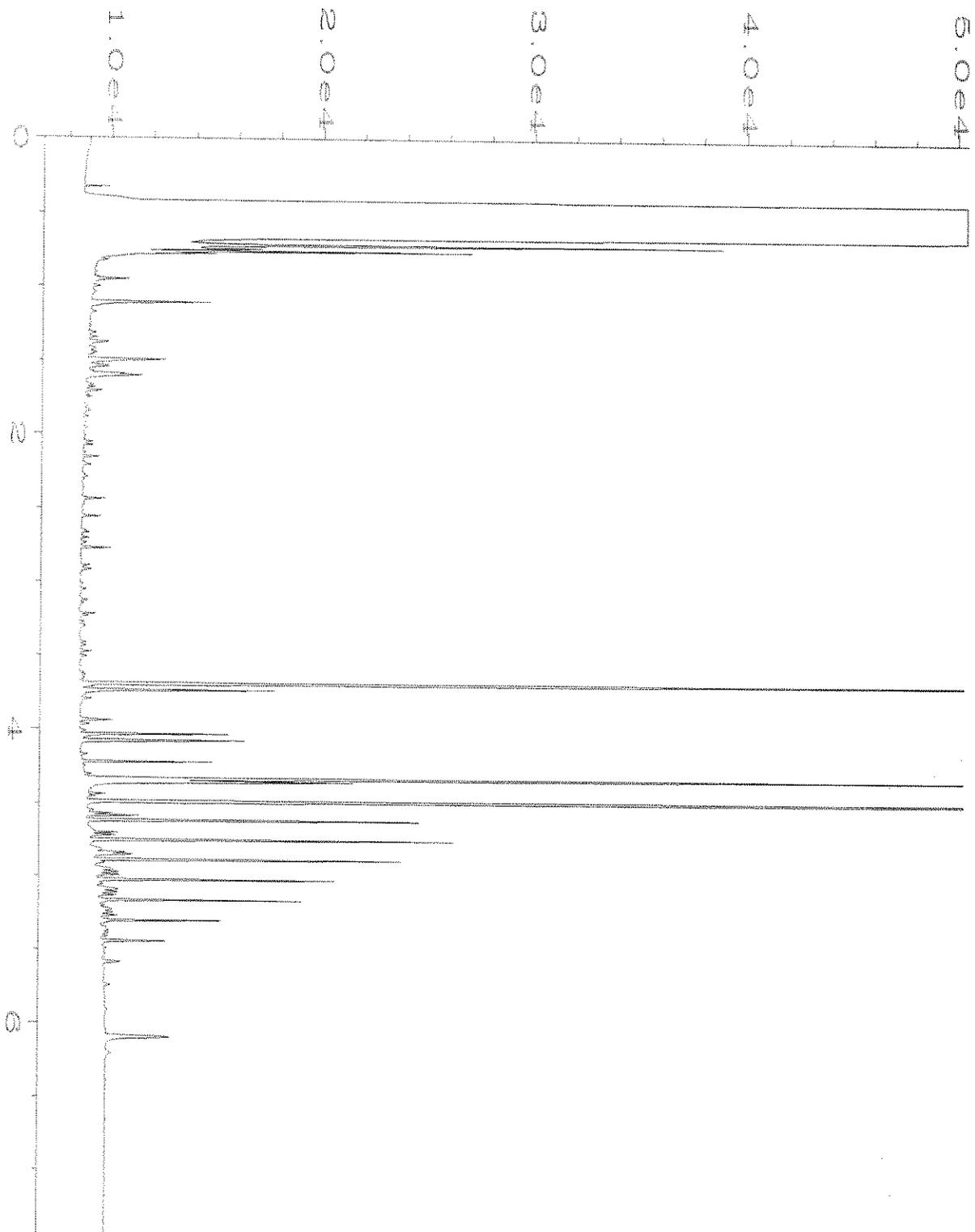
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\049F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 49
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-24	Sequence Line	: 8
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 20 Nov 20 07:56 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:17 AM		



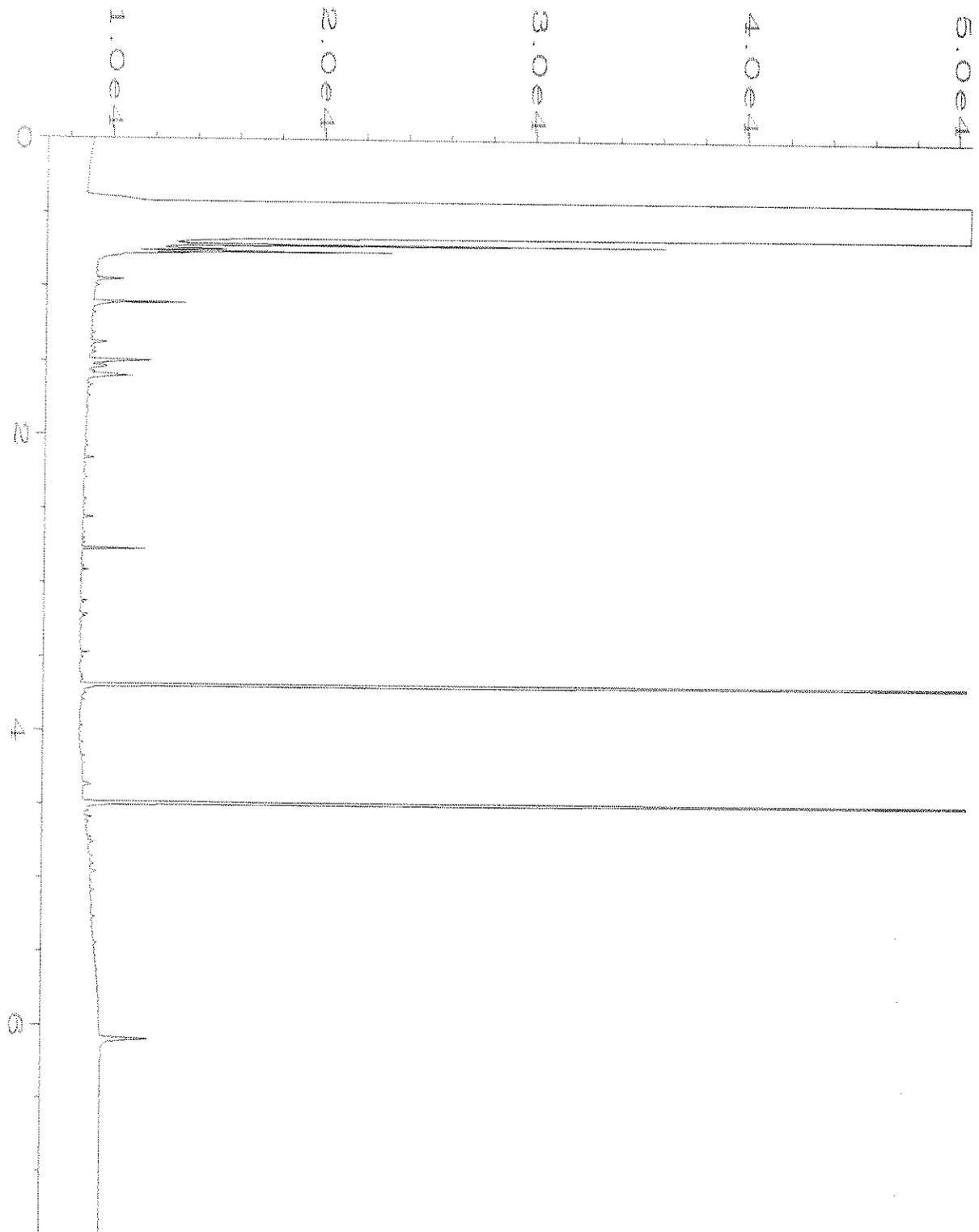
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\050F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 50
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-25	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 08:08 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:17 AM		



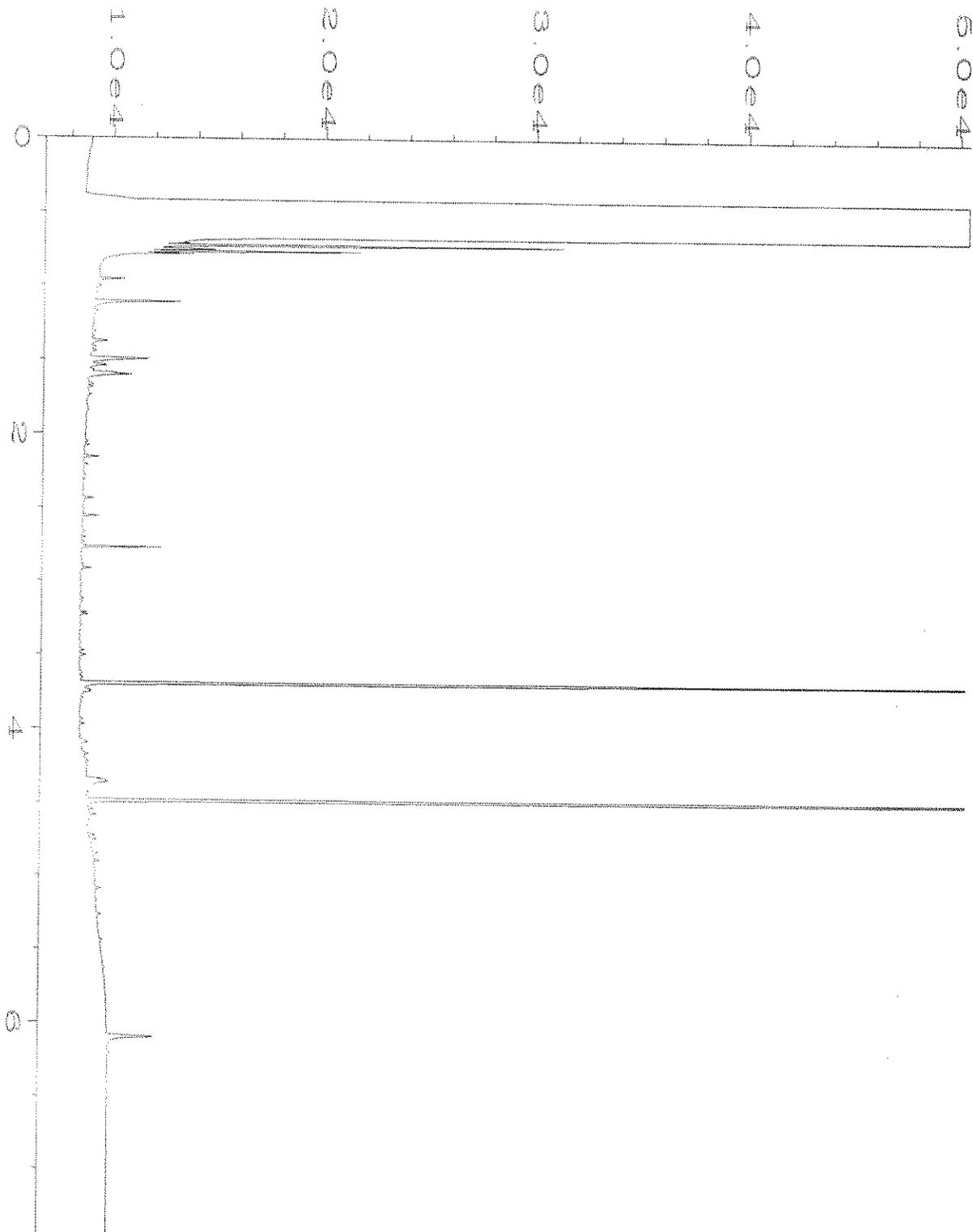
Data File Name	: C:\HPCHEM\1\DATA\11-20-20\051F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 51
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-26	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 08:42 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:18 AM		



Data File Name	: C:\HPCHEM\1\DATA\11-20-20\052F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 52
Instrument	: GC1	Injection Number	: 1
Sample Name	: 011339-27	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 08:53 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:18 AM		



Data File Name	: C:\HPCHEM\1\DATA\11-20-20\022F0601.D	Page Number	: 1
Operator	: TL	Vial Number	: 22
Instrument	: GC1	Injection Number	: 1
Sample Name	: 00-2573 mb	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 02:17 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:15 AM		



Data File Name	: C:\HPCHEM\1\DATA\11-20-20\045F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 45
Instrument	: GC1	Injection Number	: 1
Sample Name	: 00-2542 mb2	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 20 Nov 20 07:10 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	23 Nov 20 09:18 AM		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 16, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included is the amended report from the testing of material submitted on November 20, 2020 from the Texaco Strickland PO 180357, F&BI 011402 project. The benzene reporting limit for samples GP-05-112020 and SV-DUP-112020 were lowered, per your request.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP1209R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

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Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 9, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 20, 2020 from the Texaco Strickland PO 180357, F&BI 011402 project. There are 21 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP1209R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 20, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 011402 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011402 -01	GP-02-112020
011402 -02	GP-03-112020
011402 -03	GP-05-112020
011402 -04	GP-06-112020
011402 -05	SV-DUP-112020
011402 -06	Trip Blank

Samples GP-02-112020, GP-03-112020, GP-05-112020 and GP-06-112020 were sent to Fremont Analytical for carbon dioxide, methane, and oxygen analyses. The report is enclosed.

The APH EC5-8 aliphatics in sample SV-DUP-112020 exceeded the calibration range of the instrument. The sample was diluted. Both data sets were reported. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-02-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-01 1/3.4
Date Analyzed:	11/25/20	Data File:	112421.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	210
APH EC9-12 aliphatics	480
APH EC9-10 aromatics	<85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-02 1/8.4
Date Analyzed:	12/03/20	Data File:	120325.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	106	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	3,700
APH EC9-12 aliphatics	1,100
APH EC9-10 aromatics	<210

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-05-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-03 1/43
Date Analyzed:	12/04/20	Data File:	120326.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	22,000
APH EC9-12 aliphatics	5,000
APH EC9-10 aromatics	<1,100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-06-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-04 1/3.4
Date Analyzed:	11/25/20	Data File:	112423.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	160
APH EC9-12 aliphatics	390
APH EC9-10 aromatics	<85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-DUP-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-05 1/41
Date Analyzed:	12/04/20	Data File:	120327.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	24,000 ve
APH EC9-12 aliphatics	6,000
APH EC9-10 aromatics	<1,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-DUP-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-05 1/490
Date Analyzed:	11/25/20	Data File:	112428.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<20,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-06
Date Analyzed:	11/25/20	Data File:	112420.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Collected:	Not Applicable	Lab ID:	00-2555 MB
Date Analyzed:	11/24/20	Data File:	112410.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-02-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-01 1/3.4
Date Analyzed:	11/25/20	Data File:	112421.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<1.1	<0.34
Toluene	<64	<17
Ethylbenzene	2.2	0.51
m,p-Xylene	9.3	2.1
o-Xylene	2.7	0.63
Naphthalene	<0.89	<0.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-03-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-02 1/8.4
Date Analyzed:	12/03/20	Data File:	120325.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<2.7	<0.84
Toluene	<160	<42
Ethylbenzene	<3.6	<0.84
m,p-Xylene	10	2.4
o-Xylene	<3.6	<0.84
Naphthalene	<2.2	<0.42

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-05-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-03 1/43
Date Analyzed:	12/04/20	Data File:	120326.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	7.1	2.2
Toluene	<810	<210
Ethylbenzene	<19	<4.3
m,p-Xylene	<37	<8.6
o-Xylene	<19	<4.3
Naphthalene	<11	<2.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-06-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-04 1/3.4
Date Analyzed:	11/25/20	Data File:	112423.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	2.7	0.84
Toluene	<64	<17
Ethylbenzene	5.0	1.2
m,p-Xylene	20	4.7
o-Xylene	5.8	1.3
Naphthalene	<0.89	<0.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-DUP-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-05 1/41
Date Analyzed:	12/04/20	Data File:	120327.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	5.8	1.8
Toluene	<770	<200
Ethylbenzene	<18	<4.1
m,p-Xylene	37	8.5
o-Xylene	<18	<4.1
Naphthalene	<11	<2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-06
Date Analyzed:	11/25/20	Data File:	112420.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Collected:	Not Applicable	Lab ID:	00-2555 MB
Date Analyzed:	11/24/20	Data File:	112410.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

Date Extracted: 11/30/20

Date Analyzed: 11/30/20

**RESULTS FROM THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM USING METHOD ASTM D1946**

Results Reported as % Helium

<u>Sample ID</u> Laboratory ID	<u>Helium</u>
GP-02-112020 011402-01	<0.6
GP-03-112020 011402-02	<0.6
GP-05-112020 011402-03	<0.6
GP-06-112020 011402-04	<0.6
Method Blank	<0.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 011402-01 1/3.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	210	200	5
APH EC9-12 aliphatics	ug/m3	480	460	4
APH EC9-10 aromatics	ug/m3	<85	<85	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	81	70-130
APH EC9-12 aliphatics	ug/m3	67	82	70-130
APH EC9-10 aromatics	ug/m3	67	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 011402-01 1/3.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	<1.1	<1.1	nm
Toluene	ug/m3	<64	<64	nm
Ethylbenzene	ug/m3	2.2	2.3	4
m,p-Xylene	ug/m3	9.3	9.8	5
o-Xylene	ug/m3	2.7	3.3	20
Naphthalene	ug/m3	<0.89	<0.89	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	119	70-130
Toluene	ug/m3	51	84	70-130
Ethylbenzene	ug/m3	59	114	70-130
m,p-Xylene	ug/m3	120	99	70-130
o-Xylene	ug/m3	59	98	70-130
Naphthalene	ug/m3	71	82	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM  
USING METHOD ASTM D1946**

Laboratory Code: 011402-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

Laboratory Code: 011401-05 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	14 ve	19 ve	30 hr	0-20

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



**Friedman & Bruya**

Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 011402**

**Work Order Number: 2011458**

December 01, 2020

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 5 sample(s) on 11/20/2020 for the analyses presented in the following report.

***Major Gases by EPA Method 3C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

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**CLIENT:** Friedman & Bruya  
**Project:** 011402  
**Work Order:** 2011458

---

**Work Order Sample Summary**

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2011458-001	GP-02-112020	11/20/2020 10:24 AM	11/20/2020 4:24 PM
2011458-002	GP-03-112020	11/20/2020 11:22 AM	11/20/2020 4:24 PM
2011458-003	GP-05-112020	11/20/2020 12:15 PM	11/20/2020 4:24 PM
2011458-004	GP-06-112020	11/20/2020 1:25 PM	11/20/2020 4:24 PM
2011458-005	SV-DUP-112020	11/20/2020 12:00 AM	11/20/2020 4:24 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Friedman & Bruya

**Project:** 011402

---

WorkOrder Narrative:

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Major gases are reported as % ratio of the Major Gases analyzed (Carbon dioxide, Carbon Monoxide, Methane, Nitrogen, Oxygen and Hydrogen).

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS). The LCS is processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Note: The estimated BTU calculation is based off of the methane result.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**CLIENT:** Friedman & Bruya  
**Project:** 011402

**Lab ID:** 2011458-001

**Collection Date:** 11/20/2020 10:24:00 AM

**Client Sample ID:** GP-02-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578 Analyst: MS

Carbon Dioxide	27.6	0.0500		%	1	11/23/2020 6:53:00 AM
Methane	ND	0.0500		%	1	11/23/2020 6:53:00 AM
Oxygen	4.50	0.0500		%	1	11/23/2020 6:53:00 AM

**Lab ID:** 2011458-002

**Collection Date:** 11/20/2020 11:22:00 AM

**Client Sample ID:** GP-03-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578 Analyst: MS

Carbon Dioxide	30.3	0.0500		%	1	11/23/2020 7:05:00 AM
Methane	0.168	0.0500		%	1	11/23/2020 7:05:00 AM
Oxygen	1.35	0.0500		%	1	11/23/2020 7:05:00 AM

**Lab ID:** 2011458-003

**Collection Date:** 11/20/2020 12:15:00 PM

**Client Sample ID:** GP-05-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578 Analyst: MS

Carbon Dioxide	29.6	0.0500		%	1	11/23/2020 7:17:00 AM
Methane	0.515	0.0500		%	1	11/23/2020 7:17:00 AM
Oxygen	1.27	0.0500		%	1	11/23/2020 7:17:00 AM



**CLIENT:** Friedman & Bruya

**Project:** 011402

**Lab ID:** 2011458-004

**Collection Date:** 11/20/2020 1:25:00 PM

**Client Sample ID:** GP-06-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578      Analyst: MS

Carbon Dioxide	17.1	0.0500		%	1	11/23/2020 7:29:00 AM
Methane	ND	0.0500		%	1	11/23/2020 7:29:00 AM
Oxygen	8.16	0.0500		%	1	11/23/2020 7:29:00 AM

**Work Order:** 2011458  
**CLIENT:** Friedman & Bruya  
**Project:** 011402

**QC SUMMARY REPORT**  
**Major Gases by EPA Method 3C**

Sample ID: <b>LCS-R63578</b>	SampType: <b>LCS</b>	Units: %	Prep Date: <b>11/23/2020</b>	RunNo: <b>63578</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R63578</b>		Analysis Date: <b>11/23/2020</b>	SeqNo: <b>1276255</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon Dioxide	100	0.0500	100.0	0	100	70	130				
Methane	99.9	0.0500	100.0	0	99.9	70	130				
Oxygen	101	0.0500	100.0	0	101	70	130				

Sample ID: <b>2011458-001AREP</b>	SampType: <b>REP</b>	Units: %	Prep Date: <b>11/23/2020</b>	RunNo: <b>63578</b>							
Client ID: <b>GP-02-112020</b>	Batch ID: <b>R63578</b>		Analysis Date: <b>11/23/2020</b>	SeqNo: <b>1276251</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon Dioxide	27.9	0.0500						27.64	0.905	30	
Methane	ND	0.0500						0		30	
Oxygen	4.47	0.0500						4.505	0.725	30	

Client Name: **FB**

Work Order Number: **2011458**

Logged by: **Carissa True**

Date Received: **11/20/2020 4:24:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
- Air samples**
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Present
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >2°C to 6°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

**SUBCONTRACT SAMPLE CHAIN OF CUSTODY**

2011458

Page # \_\_\_\_\_ of \_\_\_\_\_

SUBCONTRACTOR  
*Ferromet*

PROJECT NAME/NO.

011402

PO #

A-472

REMARKS

Please Email Results

TURNAROUND TIME

Standard TAT

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Send Report To Michael Erdahl  
 Company Friedman and Bruya, Inc.  
 Address 3012 16th Ave W  
 City, State, ZIP Seattle, WA 98119  
 Phone # (206) 285-8282 merdah1@friedmanandbruya.com

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED				Notes
						Dioxins/Furans	EPH	VPH	CO <sub>2</sub> , CH <sub>4</sub> , O <sub>2</sub>	
GP-02-112020		11/20/20	1024	A				✓		
GP-03-112020			1122	A				✓		
GP-05-112020			1215	A				✓		
GP-06-112020			1325	A				✓		
SN-DUP-112020				A				✓		HOLD SWAMP EPI/20

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE

Relinquished by:

PRINT NAME

COMPANY

DATE

TIME

Received by:

*Eric Johnson*

*FB*

11/20/20

1355

Received by:

*Claire Anderson*

*FB*

11/20/20

1355

Received by:

*Michael Erdahl*

*FB*

11/20/20

1355

011402

SAMPLE DRAIN OF CONDENSATE

WE 11-20-20

Page # 1 of 1

Report To: Andrew York / Alton Coakley

Company: Aspect Consultants

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle, WA 98104

Phone: 206 413 5411 Email: ayork@aspect.com

SAMPLERS (signature)

PROJECT NAME & ADDRESS

PO #

NOTES:

INVOICE TO

APP

TURNAROUND TIME

Standard

Rush charges authorized by:

SAMPLE DISPOSAL

Default: Clean after 3 days

Archive (Fee may apply)

SAMPLE INFORMATION

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. (Hg)	Field Initial Time	Final Vac. (Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	Notes
GP-02-112020	01	2297	204	IA / SG	11/20/20	-29	1218	-5	1234	X			X	X	+Telhous
GP-03-112020	02	3257	244	IA / SG		-30	1222	-5	1228						
GP-05-112020	03	3476	224	IA / SG		-30	1215	-5	1221						
GP-06-112020	04	3256	230	IA / SG		-30	1325	-5	1332						
SU-DUP-112020	05	2301	221	IA / SG		-30	-	-5	-						
Trap Blank	06	3416	240	IA / SG		-	-	-	-						

19°C

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

Michael E. Calk

COMPANY

Aspect Consultants

DATE

11/20/20

TIME

5:25

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

David York

COMPANY

Aspect Consultants

DATE

11/20/20

TIME

5:25

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 9, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 20, 2020 from the Texaco Strickland PO 180357, F&BI 011402 project. There are 21 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP1209R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 20, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 011402 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011402 -01	GP-02-112020
011402 -02	GP-03-112020
011402 -03	GP-05-112020
011402 -04	GP-06-112020
011402 -05	SV-DUP-112020
011402 -06	Trip Blank

Samples GP-02-112020, GP-03-112020, GP-05-112020 and GP-06-112020 were sent to Fremont Analytical for carbon dioxide, methane, and oxygen analyses. The report is enclosed.

The APH EC5-8 aliphatics in sample SV-DUP-112020 exceeded the calibration range of the instrument. The sample was diluted. Both data sets were reported. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-02-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-01 1/3.4
Date Analyzed:	11/25/20	Data File:	112421.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	210
APH EC9-12 aliphatics	480
APH EC9-10 aromatics	<85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-02 1/8.4
Date Analyzed:	12/03/20	Data File:	120325.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	106	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	3,700
APH EC9-12 aliphatics	1,100
APH EC9-10 aromatics	<210

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-05-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-03 1/43
Date Analyzed:	12/04/20	Data File:	120326.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	22,000
APH EC9-12 aliphatics	5,000
APH EC9-10 aromatics	<1,100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-06-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-04 1/3.4
Date Analyzed:	11/25/20	Data File:	112423.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	160
APH EC9-12 aliphatics	390
APH EC9-10 aromatics	<85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-DUP-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-05 1/41
Date Analyzed:	12/04/20	Data File:	120327.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	24,000 ve
APH EC9-12 aliphatics	6,000
APH EC9-10 aromatics	<1,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-DUP-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-05 1/490
Date Analyzed:	11/25/20	Data File:	112428.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<20,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-06
Date Analyzed:	11/25/20	Data File:	112420.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Collected:	Not Applicable	Lab ID:	00-2555 MB
Date Analyzed:	11/24/20	Data File:	112410.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-02-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-01 1/3.4
Date Analyzed:	11/25/20	Data File:	112421.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<1.1	<0.34
Toluene	<64	<17
Ethylbenzene	2.2	0.51
m,p-Xylene	9.3	2.1
o-Xylene	2.7	0.63
Naphthalene	<0.89	<0.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-03-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-02 1/8.4
Date Analyzed:	12/03/20	Data File:	120325.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<2.7	<0.84
Toluene	<160	<42
Ethylbenzene	<3.6	<0.84
m,p-Xylene	10	2.4
o-Xylene	<3.6	<0.84
Naphthalene	<2.2	<0.42

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-05-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-03 1/43
Date Analyzed:	12/04/20	Data File:	120326.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<14	<4.3
Toluene	<810	<210
Ethylbenzene	<19	<4.3
m,p-Xylene	<37	<8.6
o-Xylene	<19	<4.3
Naphthalene	<11	<2.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-06-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-04 1/3.4
Date Analyzed:	11/25/20	Data File:	112423.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	2.7	0.84
Toluene	<64	<17
Ethylbenzene	5.0	1.2
m,p-Xylene	20	4.7
o-Xylene	5.8	1.3
Naphthalene	<0.89	<0.17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-DUP-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-05 1/41
Date Analyzed:	12/04/20	Data File:	120327.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<13	<4.1
Toluene	<770	<200
Ethylbenzene	<18	<4.1
m,p-Xylene	37	8.5
o-Xylene	<18	<4.1
Naphthalene	<11	<2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Collected:	11/20/20	Lab ID:	011402-06
Date Analyzed:	11/25/20	Data File:	112420.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Collected:	Not Applicable	Lab ID:	00-2555 MB
Date Analyzed:	11/24/20	Data File:	112410.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

Date Extracted: 11/30/20

Date Analyzed: 11/30/20

**RESULTS FROM THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM USING METHOD ASTM D1946**

Results Reported as % Helium

<u>Sample ID</u> Laboratory ID	<u>Helium</u>
GP-02-112020 011402-01	<0.6
GP-03-112020 011402-02	<0.6
GP-05-112020 011402-03	<0.6
GP-06-112020 011402-04	<0.6
Method Blank	<0.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 011402-01 1/3.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	210	200	5
APH EC9-12 aliphatics	ug/m3	480	460	4
APH EC9-10 aromatics	ug/m3	<85	<85	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	81	70-130
APH EC9-12 aliphatics	ug/m3	67	82	70-130
APH EC9-10 aromatics	ug/m3	67	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 011402-01 1/3.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	<1.1	<1.1	nm
Toluene	ug/m3	<64	<64	nm
Ethylbenzene	ug/m3	2.2	2.3	4
m,p-Xylene	ug/m3	9.3	9.8	5
o-Xylene	ug/m3	2.7	3.3	20
Naphthalene	ug/m3	<0.89	<0.89	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	119	70-130
Toluene	ug/m3	51	84	70-130
Ethylbenzene	ug/m3	59	114	70-130
m,p-Xylene	ug/m3	120	99	70-130
o-Xylene	ug/m3	59	98	70-130
Naphthalene	ug/m3	71	82	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/09/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM  
USING METHOD ASTM D1946**

Laboratory Code: 011402-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

Laboratory Code: 011401-05 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	14 ve	19 ve	30 hr	0-20

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



**Friedman & Bruya**

Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 011402**

**Work Order Number: 2011458**

December 01, 2020

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 5 sample(s) on 11/20/2020 for the analyses presented in the following report.

***Major Gases by EPA Method 3C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

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**CLIENT:** Friedman & Bruya  
**Project:** 011402  
**Work Order:** 2011458**Work Order Sample Summary**

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2011458-001	GP-02-112020	11/20/2020 10:24 AM	11/20/2020 4:24 PM
2011458-002	GP-03-112020	11/20/2020 11:22 AM	11/20/2020 4:24 PM
2011458-003	GP-05-112020	11/20/2020 12:15 PM	11/20/2020 4:24 PM
2011458-004	GP-06-112020	11/20/2020 1:25 PM	11/20/2020 4:24 PM
2011458-005	SV-DUP-112020	11/20/2020 12:00 AM	11/20/2020 4:24 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Friedman & Bruya

**Project:** 011402

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WorkOrder Narrative:

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Major gases are reported as % ratio of the Major Gases analyzed (Carbon dioxide, Carbon Monoxide, Methane, Nitrogen, Oxygen and Hydrogen).

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS). The LCS is processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Note: The estimated BTU calculation is based off of the methane result.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**CLIENT:** Friedman & Bruya  
**Project:** 011402

**Lab ID:** 2011458-001

**Collection Date:** 11/20/2020 10:24:00 AM

**Client Sample ID:** GP-02-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578 Analyst: MS

Carbon Dioxide	27.6	0.0500		%	1	11/23/2020 6:53:00 AM
Methane	ND	0.0500		%	1	11/23/2020 6:53:00 AM
Oxygen	4.50	0.0500		%	1	11/23/2020 6:53:00 AM

**Lab ID:** 2011458-002

**Collection Date:** 11/20/2020 11:22:00 AM

**Client Sample ID:** GP-03-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578 Analyst: MS

Carbon Dioxide	30.3	0.0500		%	1	11/23/2020 7:05:00 AM
Methane	0.168	0.0500		%	1	11/23/2020 7:05:00 AM
Oxygen	1.35	0.0500		%	1	11/23/2020 7:05:00 AM

**Lab ID:** 2011458-003

**Collection Date:** 11/20/2020 12:15:00 PM

**Client Sample ID:** GP-05-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578 Analyst: MS

Carbon Dioxide	29.6	0.0500		%	1	11/23/2020 7:17:00 AM
Methane	0.515	0.0500		%	1	11/23/2020 7:17:00 AM
Oxygen	1.27	0.0500		%	1	11/23/2020 7:17:00 AM



**CLIENT:** Friedman & Bruya

**Project:** 011402

**Lab ID:** 2011458-004

**Collection Date:** 11/20/2020 1:25:00 PM

**Client Sample ID:** GP-06-112020

**Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R63578      Analyst: MS

Carbon Dioxide	17.1	0.0500		%	1	11/23/2020 7:29:00 AM
Methane	ND	0.0500		%	1	11/23/2020 7:29:00 AM
Oxygen	8.16	0.0500		%	1	11/23/2020 7:29:00 AM

**Work Order:** 2011458  
**CLIENT:** Friedman & Bruya  
**Project:** 011402

**QC SUMMARY REPORT**  
**Major Gases by EPA Method 3C**

Sample ID: <b>LCS-R63578</b>		SampType: <b>LCS</b>		Units: %		Prep Date: <b>11/23/2020</b>		RunNo: <b>63578</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>R63578</b>				Analysis Date: <b>11/23/2020</b>		SeqNo: <b>1276255</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon Dioxide	100	0.0500	100.0	0	100	70	130			
Methane	99.9	0.0500	100.0	0	99.9	70	130			
Oxygen	101	0.0500	100.0	0	101	70	130			

Sample ID: <b>2011458-001AREP</b>		SampType: <b>REP</b>		Units: %		Prep Date: <b>11/23/2020</b>		RunNo: <b>63578</b>			
Client ID: <b>GP-02-112020</b>		Batch ID: <b>R63578</b>				Analysis Date: <b>11/23/2020</b>		SeqNo: <b>1276251</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon Dioxide	27.9	0.0500						27.64	0.905	30
Methane	ND	0.0500						0		30
Oxygen	4.47	0.0500						4.505	0.725	30

Client Name: <b>FB</b>	Work Order Number: <b>2011458</b>
Logged by: <b>Carissa True</b>	Date Received: <b>11/20/2020 4:24:00 PM</b>

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

**Log In**

3. Coolers are present? Yes  No  NA
- Air samples**
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Present
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >2°C to 6°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

**Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

**Item Information**

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

**SUBCONTRACT SAMPLE CHAIN OF CUSTODY**

2011458

Page # \_\_\_\_\_ of \_\_\_\_\_

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 merdah@friedmanandbruya.com

SUBCONTRACTOR <u>Fremont</u>		PROJECT NAME/NO. <u>011402</u>	PO # <u>A-472</u>
REMARKS Please Email Results			

TURNAROUND TIME <input checked="" type="checkbox"/> Standard TAT <input type="checkbox"/> RUSH	Rush charges authorized by: _____
SAMPLE DISPOSAL <input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions	

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED				Notes	
						Dioxins/Furans	EPH	VPH	<u>CO<sub>2</sub>, CH<sub>4</sub>, O<sub>2</sub></u>		
GP-02-112020		11/20/20	1024	A							
GP-03-112020		11/20/20	1122	A							
GP-05-112020		11/20/20	1215	A							
GP-06-112020		11/20/20	1325	A							
SN-DUP-112020				A							HOLD SWAMP EPI/20

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044		SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Relinquished by: <u>[Signature]</u>		<u>Michael Erdahl</u>		<u>Eric Duvall</u>		Friedman & Bruya		11/20/20	1355
Received by: <u>[Signature]</u>		<u>Claire Anderson</u>		<u>[Signature]</u>		Friedman & Bruya		11/20/20	1624
Received by: _____		_____		_____		_____		_____	_____

011402

SAMPLE DRAIN OF CONDENSATE

WE 11-20-20

Page # 1 of 1

Report To: Andrew York / Alton Coakley

Company: Aspect Consultants

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle, WA 98104

Phone: 206 413 5411 Email: ayork@aspect.com

SAMPLERS (signature)

PROJECT NAME & ADDRESS

PO #

NOTES:

INVOICE TO

APP

TURNAROUND TIME

Standard

Rush charges authorized by:

SAMPLE DISPOSAL

Default: Clean after 3 days

Archive (Fee may apply)

SAMPLE INFORMATION

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. (Hg)	Field Initial Time	Final Vac. (Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	Notes
GP-02-112020	01	2297	204	IA / SG	11/20/20	-29	1218	-5	1234	X			X	X	+Tel/bag
GP-03-112020	02	3257	244	IA / SG		-30	1222	-5	1228						
GP-05-112020	03	3476	224	IA / SG		-30	1215	-5	1221						
GP-06-112020	04	3256	230	IA / SG		-30	1325	-5	1332						
SU-DUP-112020	05	2301	221	IA / SG		-30	-	-5	-						
Trap Blank	06	3416	240	IA / SG		-	-	-	-						

19°C

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

David York

Michael E. Calk

COMPANY

Aspect Consultants

TWA

DATE TIME

11/20/20 11:20 AM

11/20/20 5:25

SIGNATURE

Relinquished by:

Received by:

PRINT NAME

David York

Michael E. Calk

COMPANY

Aspect Consultants

TWA

DATE TIME

11/20/20 11:20 AM

11/20/20 5:25

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 1, 2020

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 20, 2020 from the Texaco Strickland PO 180357, F&BI 011403 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Aspect Data  
ASP1201R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 20, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland PO 180357, F&BI 011403 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011403 -01	MW-27-112020

The NWTPH-Dx surrogate in sample MW-27-112020 exceeded the acceptance criteria. No material was detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/01/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011403

Date Extracted: 11/25/20

Date Analyzed: 11/25/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-27-112020 011403-01	<100	97
Method Blank 00-2593 MB	<100	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/01/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011403

Date Extracted: 11/23/20

Date Analyzed: 11/23/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 47-140)
MW-27-112020 011403-01	<50	<250	151 vo
Method Blank 00-2585 MB	<50	<250	130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-27-112020	Client:	Aspect Consulting, LLC
Date Received:	11/20/20	Project:	Texaco Strickland PO 180357
Date Extracted:	11/23/20	Lab ID:	011403-01
Date Analyzed:	11/23/20	Data File:	112316.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland PO 180357
Date Extracted:	11/23/20	Lab ID:	00-2550 mb
Date Analyzed:	11/23/20	Data File:	112318.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/01/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011403

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 011391-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	360	370	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	98	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/01/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011403

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	100	104	61-133	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/01/20

Date Received: 11/20/20

Project: Texaco Strickland PO 180357, F&BI 011403

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011411-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	91	76-125
Toluene	ug/L (ppb)	10	<1	91	76-122
Ethylbenzene	ug/L (ppb)	10	<1	95	69-135
m,p-Xylene	ug/L (ppb)	20	<2	95	69-135
o-Xylene	ug/L (ppb)	10	<1	94	60-140
Naphthalene	ug/L (ppb)	10	<1	88	44-164

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	10	96	93	69-134	3
Toluene	ug/L (ppb)	10	90	91	72-122	1
Ethylbenzene	ug/L (ppb)	10	95	95	77-124	0
m,p-Xylene	ug/L (ppb)	20	94	94	81-112	0
o-Xylene	ug/L (ppb)	10	93	94	81-121	1
Naphthalene	ug/L (ppb)	10	89	92	64-133	3

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

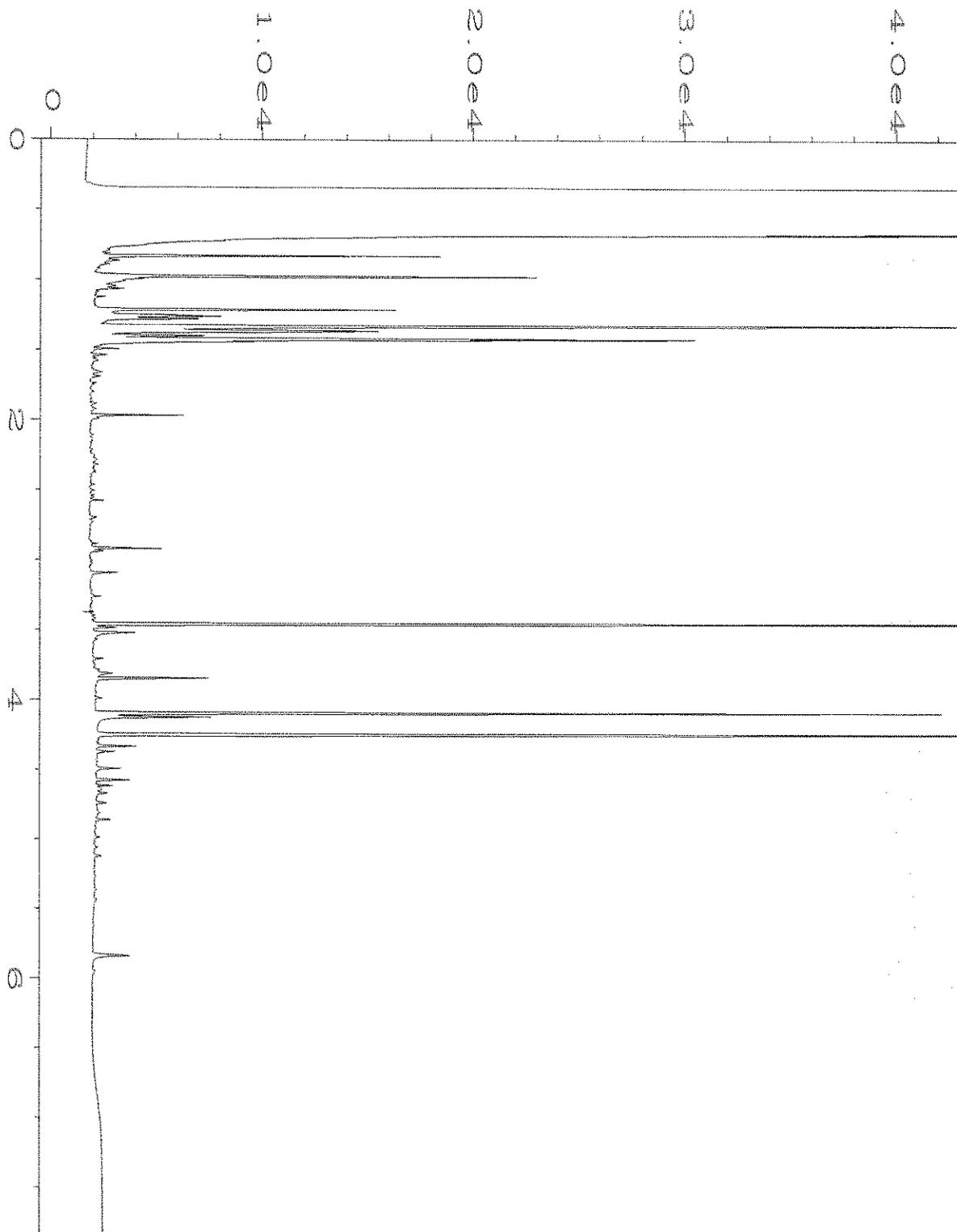
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

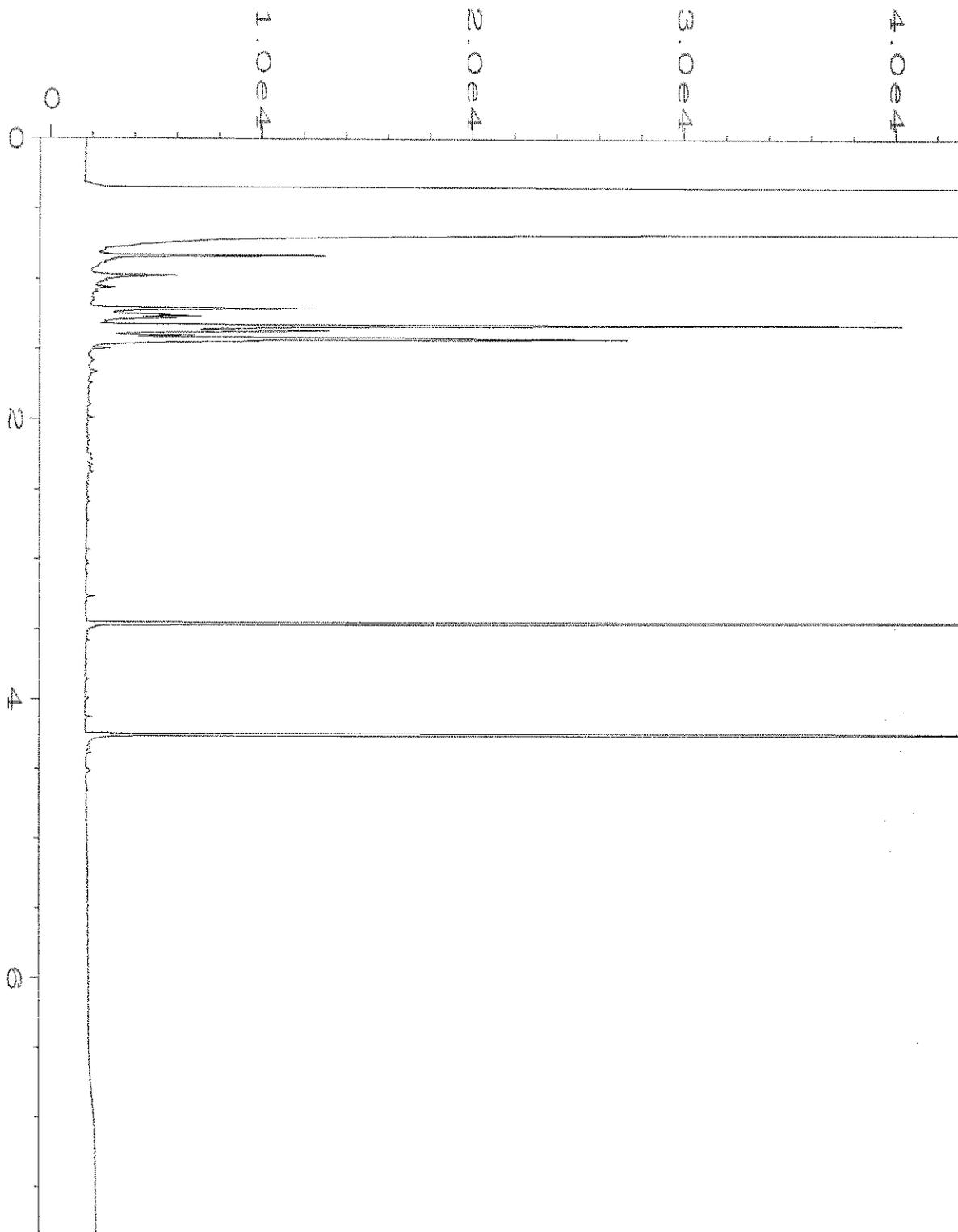
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

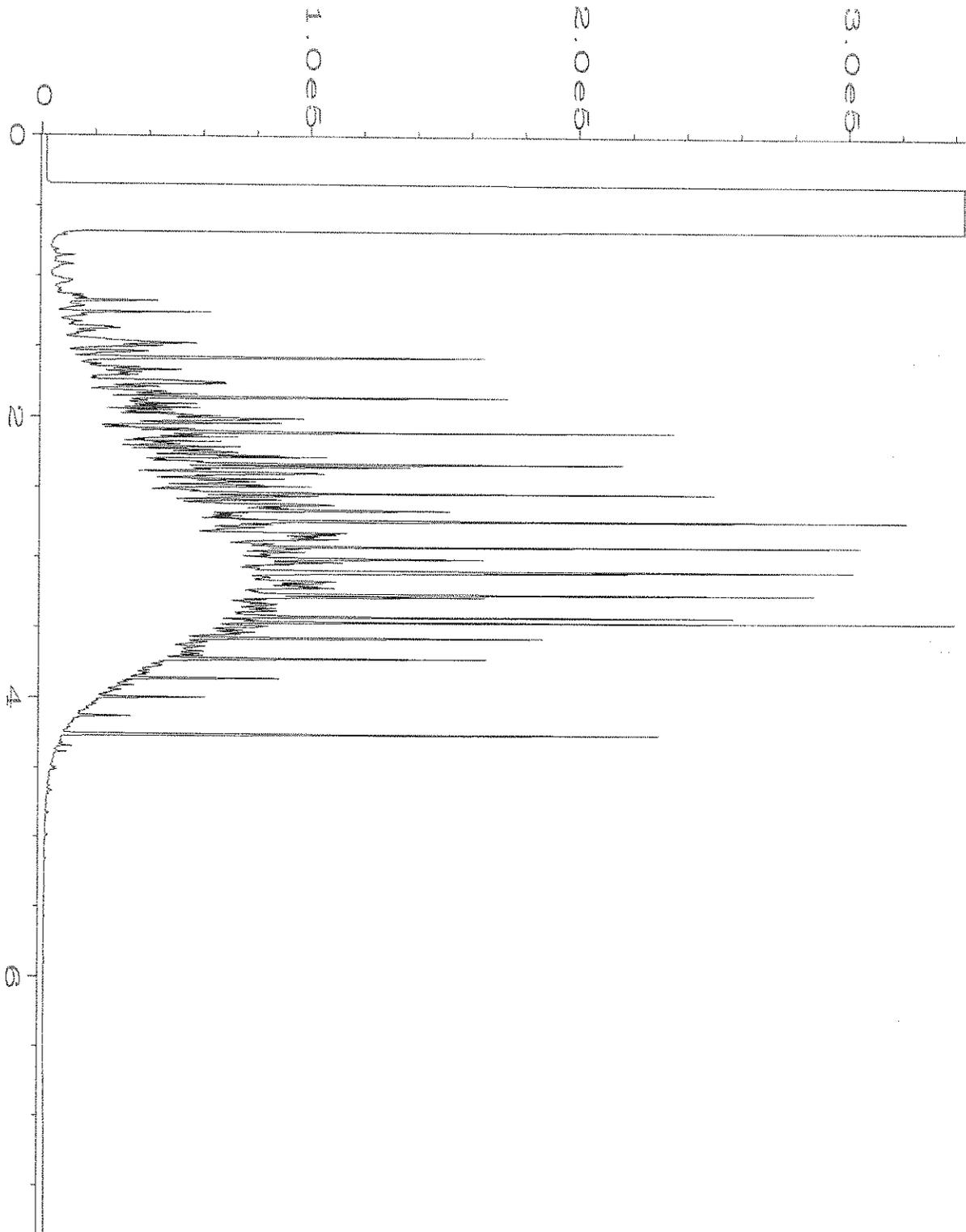
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\4\DATA\11-23-20\040F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 40
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 011403-01	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 23 Nov 20 06:16 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Nov 20 09:03 AM		



Data File Name	: C:\HPCHEM\4\DATA\11-23-20\032F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 32
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 00-2585 mb	Sequence Line	: 8
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 23 Nov 20 04:36 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Nov 20 09:01 AM		



Data File Name	: C:\HPCHEM\4\DATA\11-23-20\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 61-146C	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 23 Nov 20 01:35 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	24 Nov 20 09:00 AM		



FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

July 30, 2021

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on July 20, 2021 from the Texaco Strickland 180357, F&BI 107311 project. There are 24 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Adam Griffin  
ASP0730R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 20, 2021 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 107311 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
107311 -01	GP-02-072021
107311 -02	GP-03-072021
107311 -03	GP-05-072021
107311 -04	GP-06-072021
107311 -05	GP-Dup-072021
107311 -06	BA-01-072021
107311 -07	IA-01-072021
107311 -08	IA-02-072021

Individually certified canisters were provided for TO-15 sampling.

Samples GP-02-072021, GP-03-072021, GP-05-072021, GP-06-072021, and GP-Dup-072021 were sent to Fremont Analytical for major gasses analysis. The report is enclosed.

The APH EC5-8 aliphatics concentration in samples GP-03-072021, GP-05-072021, and GP-Dup-072021 exceeded the calibration range of the instrument. The data were flagged accordingly.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-02-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-01 1/5.5
Date Analyzed:	07/22/21	Data File:	072129.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	1,300
APH EC9-12 aliphatics	830
APH EC9-10 aromatics	<140

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-02 1/5.8
Date Analyzed:	07/22/21	Data File:	072128.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	4,500 ve
APH EC9-12 aliphatics	740
APH EC9-10 aromatics	<140

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-05-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-03 1/9.1
Date Analyzed:	07/22/21	Data File:	072130.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	16,000 ve
APH EC9-12 aliphatics	2,300
APH EC9-10 aromatics	<230

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-06-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-04 1/5.5
Date Analyzed:	07/22/21	Data File:	072127.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	600
APH EC9-12 aliphatics	2,300
APH EC9-10 aromatics	250

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-Dup-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-05 1/5.4
Date Analyzed:	07/22/21	Data File:	072125.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	4,000 ve
APH EC9-12 aliphatics	950
APH EC9-10 aromatics	<130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	BA-01-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-06
Date Analyzed:	07/22/21	Data File:	072124.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	82
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-01-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-07
Date Analyzed:	07/21/21	Data File:	072123.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	260
APH EC9-12 aliphatics	56
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-02-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-08
Date Analyzed:	07/21/21	Data File:	072122.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	110
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Collected:	Not Applicable	Lab ID:	01-1591 MB
Date Analyzed:	07/21/21	Data File:	072113.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-02-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-01 1/5.5
Date Analyzed:	07/22/21	Data File:	072129.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	15	4.8
Toluene	150	39
Ethylbenzene	15	3.5
m,p-Xylene	60	14
o-Xylene	20	4.5
Naphthalene	<1.4	<0.28

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-03-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-02 1/5.8
Date Analyzed:	07/22/21	Data File:	072128.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	8.0	2.5
Toluene	<110	<29
Ethylbenzene	13	2.9
m,p-Xylene	49	11
o-Xylene	16	3.8
Naphthalene	<1.5	<0.29

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-05-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-03 1/9.1
Date Analyzed:	07/22/21	Data File:	072130.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	13	4.1
Toluene	<170	<45
Ethylbenzene	29	6.6
m,p-Xylene	120	27
o-Xylene	38	8.8
Naphthalene	<2.4	<0.45

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-06-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-04 1/5.5
Date Analyzed:	07/22/21	Data File:	072127.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	2.4	0.75
Toluene	<100	<27
Ethylbenzene	6.8	1.6
m,p-Xylene	27	6.1
o-Xylene	11	2.5
Naphthalene	1.6	0.30

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-Dup-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-05 1/5.4
Date Analyzed:	07/22/21	Data File:	072125.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	7.9	2.5
Toluene	<100	<27
Ethylbenzene	12	2.7
m,p-Xylene	45	10
o-Xylene	15	3.5
Naphthalene	<1.4	<0.27

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	BA-01-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-06
Date Analyzed:	07/22/21	Data File:	072124.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.057 j	<0.011 j

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-01-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-07
Date Analyzed:	07/21/21	Data File:	072123.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	1.2	0.37
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.5	0.34
o-Xylene	0.66	0.15
Naphthalene	0.13	0.024

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-02-072021	Client:	Aspect Consulting, LLC
Date Received:	07/20/21	Project:	Texaco Strickland 180357
Date Collected:	07/20/21	Lab ID:	107311-08
Date Analyzed:	07/21/21	Data File:	072122.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.057 j	<0.011 j

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Collected:	Not Applicable	Lab ID:	01-1591 MB
Date Analyzed:	07/21/21	Data File:	072113.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.057 j	<0.011 j

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/30/21  
Date Received: 07/20/21  
Project: Texaco Strickland 180357, F&BI 107311  
Date Extracted: 07/22/21  
Date Analyzed: 07/22/21

**RESULTS FROM THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM USING METHOD ASTM D1946**

Results Reported as % Helium

<u>Sample ID</u> Laboratory ID	<u>Helium</u>
GP-02-072021 107311-01	<0.6
GP-03-072021 107311-02	<0.6
GP-05-072021 107311-03	<0.6
GP-06-072021 107311-04	<0.6
GP-Dup-072021 107311-05	<0.6
Method Blank 01-1600 MB	<0.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/30/21

Date Received: 07/20/21

Project: Texaco Strickland 180357, F&BI 107311

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 107311-05 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	4,000	4,000	0
APH EC9-12 aliphatics	ug/m3	950	970	2
APH EC9-10 aromatics	ug/m3	<130	<130	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	77	70-130
APH EC9-12 aliphatics	ug/m3	67	98	70-130
APH EC9-10 aromatics	ug/m3	67	95	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/30/21

Date Received: 07/20/21

Project: Texaco Strickland 180357, F&BI 107311

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 107311-05 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	7.9	7.8	1
Toluene	ug/m3	<100	<100	nm
Ethylbenzene	ug/m3	12	12	0
m,p-Xylene	ug/m3	45	45	0
o-Xylene	ug/m3	15	15	0
Naphthalene	ug/m3	<1.4	<1.4	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	80	70-130
Toluene	ug/m3	51	89	70-130
Ethylbenzene	ug/m3	59	73	70-130
m,p-Xylene	ug/m3	120	82	70-130
o-Xylene	ug/m3	59	86	70-130
Naphthalene	ug/m3	71	90	70-130

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 07/30/21

Date Received: 07/20/21

Project: Texaco Strickland 180357, F&BI 107311

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR HELIUM  
USING METHOD ASTM D1946**

Laboratory Code: 107311-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

**Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

107311

SAMPLE CHAIN OF CUSTODY ME 07-20-21

Report To: Andrew Monkofski / Adam Gaffin

Company: Aspect Consulting

Address: 7100 2nd Ave Ste 550

City, State, ZIP: Seattle, WA 98104

Phone: 206 413 5411 Email: gmonkofski@aspectconsulting.com

SAMPLERS (signature)	<u>Rachel</u>
PROJECT NAME & ADDRESS	<u>Texas Shoveland</u>
PO #	<u>180357</u>
NOTES:	<u>APP</u>
INVOICE TO	<u>APP</u>

Page # 1 of 1

TURNAROUND TIME

Standard  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL  
 Default: Clean after 3 days  
 Archive (Fee may apply)

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. (Hg)	Field Initial Time	Final Vac. (Hg)	Field Final Time	ANALYSIS REQUESTED					Notes
										TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	
GP-02-072021	01	2435	241	IA / SG	7/20/21	30	1206	5	1205	X	X	X	X	X	CO2, CH4, O2 by TO-3C
GP-03-072021	02	2434	243	IA / SG		30	1229	5	1234	X	X	X	X	X	
GP-05-072021	03	2438	251	IA / SG		19	1453	5	1503	X	X	X	X	X	
GP-06-072021	04	3064	306	IA / SG		30	1538	5	1543	X	X	X	X	X	
GP-DUP-072021	05	2294	255	IA / SG		27	1244	5	1249	X	X	X	X	X	
BA-01-072021	06	20555	08182	IA / SG		30	0748	5	1165	X	X	X	X	X	Do not analyze
IA-01-072021	07	38349	07060	IA / SG		30	0750	5	1625	X	X	X	X	X	IA samples for
IA-02-072021	08	18510	01847	IA / SG		30	0751	5	1550	X	X	X	X	X	He, CO2, O2, CH4

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Rachel</u>	<u>Rachel Connell</u>	<u>Aspect</u>	<u>7/20/21</u>	<u>1726</u>
Received by: _____	<u>JOE MATHANES</u>	<u>EBI</u>	<u>7/20/21</u>	<u>1726</u>
Relinquished by: _____				
Received by: _____	<u>Samples received at</u>	<u>13 °C</u>		



**Friedman & Bruya**

Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 107311**

**Work Order Number: 2107355**

July 29, 2021

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 5 sample(s) on 7/22/2021 for the analyses presented in the following report.

***Major Gases by EPA Method 3C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

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**CLIENT:** Friedman & Bruya  
**Project:** 107311  
**Work Order:** 2107355

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**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2107355-001	GP-02-072021	07/22/2021 2:00 PM	07/22/2021 4:21 PM
2107355-002	GP-03-072021	07/22/2021 2:00 PM	07/22/2021 4:21 PM
2107355-003	GP-05-072021	07/22/2021 2:00 PM	07/22/2021 4:21 PM
2107355-004	GP-06-072021	07/22/2021 2:00 PM	07/22/2021 4:21 PM
2107355-005	GP-DUP-072021	07/22/2021 2:00 PM	07/22/2021 4:21 PM

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Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Friedman & Bruya

**Project:** 107311

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Major gases are reported as % ratio of the Major Gases analyzed (Carbon dioxide, Carbon Monoxide, Methane, Nitrogen, Oxygen and Hydrogen).

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS). The LCS is processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**CLIENT:** Friedman & Bruya  
**Project:** 107311

**Lab ID:** 2107355-001

**Client Sample ID:** GP-02-072021

**Collection Date:** 7/22/2021 2:00:00 PM

**Matrix:** SVE

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R68895 Analyst: MS

Carbon Dioxide	22.8	0.110	D	%	2.2	7/23/2021 4:06:00 PM
Methane	ND	0.110	D	%	2.2	7/23/2021 4:06:00 PM
Oxygen	8.46	0.110	D	%	2.2	7/23/2021 4:06:00 PM

**Lab ID:** 2107355-002

**Client Sample ID:** GP-03-072021

**Collection Date:** 7/22/2021 2:00:00 PM

**Matrix:** SVE

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R68895 Analyst: MS

Carbon Dioxide	25.0	0.105	D	%	2.1	7/23/2021 4:18:00 PM
Methane	ND	0.105	D	%	2.1	7/23/2021 4:18:00 PM
Oxygen	3.12	0.105	D	%	2.1	7/23/2021 4:18:00 PM

**Lab ID:** 2107355-003

**Client Sample ID:** GP-05-072021

**Collection Date:** 7/22/2021 2:00:00 PM

**Matrix:** SVE

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R68895 Analyst: MS

Carbon Dioxide	22.3	0.105	D	%	2.1	7/23/2021 4:30:00 PM
Methane	0.485	0.105	D	%	2.1	7/23/2021 4:30:00 PM
Oxygen	5.00	0.105	D	%	2.1	7/23/2021 4:30:00 PM



**CLIENT:** Friedman & Bruya  
**Project:** 107311

**Lab ID:** 2107355-004

**Collection Date:** 7/22/2021 2:00:00 PM

**Client Sample ID:** GP-06-072021

**Matrix:** SVE

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R68895 Analyst: MS

Carbon Dioxide	18.4	0.0950	D	%	1.9	7/23/2021 4:52:00 PM
Methane	ND	0.0950	D	%	1.9	7/23/2021 4:52:00 PM
Oxygen	9.22	0.0950	D	%	1.9	7/23/2021 4:52:00 PM

**Lab ID:** 2107355-005

**Collection Date:** 7/22/2021 2:00:00 PM

**Client Sample ID:** GP-DUP-072021

**Matrix:** SVE

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Major Gases by EPA Method 3C**

Batch ID: R68895 Analyst: MS

Carbon Dioxide	22.1	0.105	D	%	2.1	7/23/2021 5:30:00 PM
Methane	ND	0.105	D	%	2.1	7/23/2021 5:30:00 PM
Oxygen	6.17	0.105	D	%	2.1	7/23/2021 5:30:00 PM

**Work Order:** 2107355  
**CLIENT:** Friedman & Bruya  
**Project:** 107311

**QC SUMMARY REPORT**  
**Major Gases by EPA Method 3C**

Sample ID: <b>LCS-R68895</b>	SampType: <b>LCS</b>	Units: %			Prep Date: <b>7/23/2021</b>	RunNo: <b>68895</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>R68895</b>				Analysis Date: <b>7/23/2021</b>	SeqNo: <b>1393816</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	99.7	0.0500	100.0	0	99.7	70	130				
Methane	99.6	0.0500	100.0	0	99.6	70	130				
Oxygen	100	0.0500	100.0	0	100	70	130				

Sample ID: <b>2107355-001AREP</b>	SampType: <b>REP</b>	Units: %			Prep Date: <b>7/23/2021</b>	RunNo: <b>68895</b>					
Client ID: <b>GP-02-072021</b>	Batch ID: <b>R68895</b>				Analysis Date: <b>7/23/2021</b>	SeqNo: <b>1393811</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	22.7	0.110						22.77	0.259	30	D
Methane	ND	0.110						0		30	D
Oxygen	8.56	0.110						8.461	1.16	30	D

Client Name: **FB**

 Work Order Number: **2107355**

 Logged by: **Gabrielle Coeuille**

 Date Received: **7/22/2021 4:21:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
- Air samples**
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes  No  Not Present
6. Was an attempt made to cool the samples? Yes  No  NA
7. Were all items received at a temperature of >2°C to 6°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
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June 11, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on June 5, 2019 from the Aloha Cafe 180357, F&BI 906075 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0611R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 5, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 906075 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
906075 -01	GP-04-1
906075 -02	GP-04-2
906075 -03	AB-01-2
906075 -04	AB-01-5.5
906075 -05	AB-01-4
906075 -06	AB-01-11

The 8260C matrix spike and matrix spike duplicate failed the relative percent difference for dichlorodifluoromethane and cis-1,3-dichloropropene. The analytes were not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/19

Date Received: 06/05/19

Project: Aloha Cafe 180357, F&BI 906075

Date Extracted: 06/06/19

Date Analyzed: 06/06/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
GP-04-2 906075-02	<5	108
Method Blank 09-1285 MB	<5	101

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/19

Date Received: 06/05/19

Project: Aloha Cafe 180357, F&BI 906075

Date Extracted: 06/07/19

Date Analyzed: 06/07/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
GP-04-2 906075-02	<50	<250	115
Method Blank 09-1347 MB	<50	<250	100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	GP-04-2	Client:	Aspect Consulting, LLC
Date Received:	06/05/19	Project:	Aloha Cafe 180357, F&BI 906075
Date Extracted:	06/06/19	Lab ID:	906075-02
Date Analyzed:	06/06/19	Data File:	060612.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	97	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906075
Date Extracted:	06/06/19	Lab ID:	09-1316 mb
Date Analyzed:	06/06/19	Data File:	060608.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	145
Toluene-d8	94	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/19

Date Received: 06/05/19

Project: Aloha Cafe 180357, F&BI 906075

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-Gx**

Laboratory Code: 906063-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	280	160	56 hr

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	120	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/19

Date Received: 06/05/19

Project: Aloha Cafe 180357, F&BI 906075

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 906120-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	190	92	92	64-133	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	90	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/19

Date Received: 06/05/19

Project: Aloha Cafe 180357, F&BI 906075

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 905585-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	20	16	10-142	22 vo
Chloromethane	mg/kg (ppm)	2.5	<0.5	42	36	10-126	15
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	42	39	10-138	7
Bromomethane	mg/kg (ppm)	2.5	<0.5	48	46	10-163	4
Chloroethane	mg/kg (ppm)	2.5	<0.5	49	47	10-176	4
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	43	41	10-176	5
Acetone	mg/kg (ppm)	12.5	<0.5	124	119	10-163	4
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	69	69	10-160	0
Hexane	mg/kg (ppm)	2.5	<0.25	36	34	10-137	6
Methylene chloride	mg/kg (ppm)	2.5	<0.5	66	66	10-156	0
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	69	69	21-145	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	68	67	14-137	1
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	70	69	19-140	1
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	68	71	10-158	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	73	71	25-135	3
Chloroform	mg/kg (ppm)	2.5	<0.05	71	70	21-145	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	97	95	19-147	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	68	68	12-160	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	70	70	10-156	0
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	68	67	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	67	66	9-164	2
Benzene	mg/kg (ppm)	2.5	<0.03	69	68	29-129	1
Trichloroethene	mg/kg (ppm)	2.5	<0.03	67	66	21-139	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	71	70	30-135	1
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	87	79	23-155	10
Dibromomethane	mg/kg (ppm)	2.5	<0.05	74	72	23-145	3
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	85	84	24-155	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	74	75	28-144	1
Toluene	mg/kg (ppm)	2.5	<0.05	119	79	35-130	40 vo
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	78	78	26-149	0
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	91	80	10-205	13
2-Hexanone	mg/kg (ppm)	12.5	<0.5	90	87	15-166	3
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	73	74	31-137	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	68	65	20-133	5
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	78	78	28-150	0
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	74	74	28-142	0
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	69	69	32-129	0
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	88	74	32-137	17
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	79	76	31-143	4
m,p-Xylene	mg/kg (ppm)	5	<0.1	69	67	34-136	3
o-Xylene	mg/kg (ppm)	2.5	<0.05	70	68	33-134	3
Styrene	mg/kg (ppm)	2.5	<0.05	76	75	35-137	1
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	72	69	31-142	4
Bromoform	mg/kg (ppm)	2.5	<0.05	82	83	21-156	1
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	67	66	23-146	2
Bromobenzene	mg/kg (ppm)	2.5	<0.05	71	72	34-130	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	66	66	18-149	0
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	81	82	28-140	1
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	74	76	25-144	3
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	71	71	31-134	0
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	70	70	31-136	0
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	69	66	30-137	4
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	66	66	10-182	0
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	66	64	23-145	3
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	64	63	21-149	2
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	68	69	30-131	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	67	68	29-129	1
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	70	70	31-132	0
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	74	74	11-161	0
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	63	63	22-142	0
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	59	55	10-142	7
Naphthalene	mg/kg (ppm)	2.5	<0.05	64	65	14-157	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	60	60	20-144	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/19

Date Received: 06/05/19

Project: Aloha Cafe 180357, F&BI 906075

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	46	10-146
Chloromethane	mg/kg (ppm)	2.5	65	27-133
Vinyl chloride	mg/kg (ppm)	2.5	75	22-139
Bromomethane	mg/kg (ppm)	2.5	67	38-114
Chloroethane	mg/kg (ppm)	2.5	79	9-163
Trichlorofluoromethane	mg/kg (ppm)	2.5	76	10-196
Acetone	mg/kg (ppm)	12.5	140	52-141
1,1-Dichloroethene	mg/kg (ppm)	2.5	103	47-128
Hexane	mg/kg (ppm)	2.5	78	43-142
Methylene chloride	mg/kg (ppm)	2.5	81	42-132
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	89	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	94	67-129
1,1-Dichloroethane	mg/kg (ppm)	2.5	94	68-115
2,2-Dichloropropane	mg/kg (ppm)	2.5	98	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	72-127
Chloroform	mg/kg (ppm)	2.5	90	66-120
2-Butanone (MEK)	mg/kg (ppm)	12.5	110	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	85	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	96	62-131
1,1-Dichloropropene	mg/kg (ppm)	2.5	93	69-128
Carbon tetrachloride	mg/kg (ppm)	2.5	97	60-139
Benzene	mg/kg (ppm)	2.5	90	68-114
Trichloroethene	mg/kg (ppm)	2.5	87	64-117
1,2-Dichloropropane	mg/kg (ppm)	2.5	89	72-127
Bromodichloromethane	mg/kg (ppm)	2.5	95	72-130
Dibromomethane	mg/kg (ppm)	2.5	90	70-120
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	97	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	93	75-136
Toluene	mg/kg (ppm)	2.5	90	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	96	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	93	75-113
2-Hexanone	mg/kg (ppm)	12.5	98	33-152
1,3-Dichloropropane	mg/kg (ppm)	2.5	90	72-130
Tetrachloroethene	mg/kg (ppm)	2.5	95	72-114
Dibromochloromethane	mg/kg (ppm)	2.5	99	74-125
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	92	74-132
Chlorobenzene	mg/kg (ppm)	2.5	87	76-111
Ethylbenzene	mg/kg (ppm)	2.5	91	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	100	69-135
m,p-Xylene	mg/kg (ppm)	5	92	78-122
o-Xylene	mg/kg (ppm)	2.5	92	77-124
Styrene	mg/kg (ppm)	2.5	95	74-126
Isopropylbenzene	mg/kg (ppm)	2.5	97	76-127
Bromoform	mg/kg (ppm)	2.5	106	56-132
n-Propylbenzene	mg/kg (ppm)	2.5	94	74-124
Bromobenzene	mg/kg (ppm)	2.5	91	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	96	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	94	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	92	61-137
2-Chlorotoluene	mg/kg (ppm)	2.5	95	74-121
4-Chlorotoluene	mg/kg (ppm)	2.5	93	75-122
tert-Butylbenzene	mg/kg (ppm)	2.5	97	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	95	76-125
sec-Butylbenzene	mg/kg (ppm)	2.5	95	71-130
p-Isopropyltoluene	mg/kg (ppm)	2.5	96	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	93	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	89	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	93	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	99	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	96	64-135
Hexachlorobutadiene	mg/kg (ppm)	2.5	97	50-153
Naphthalene	mg/kg (ppm)	2.5	92	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	91	63-138

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

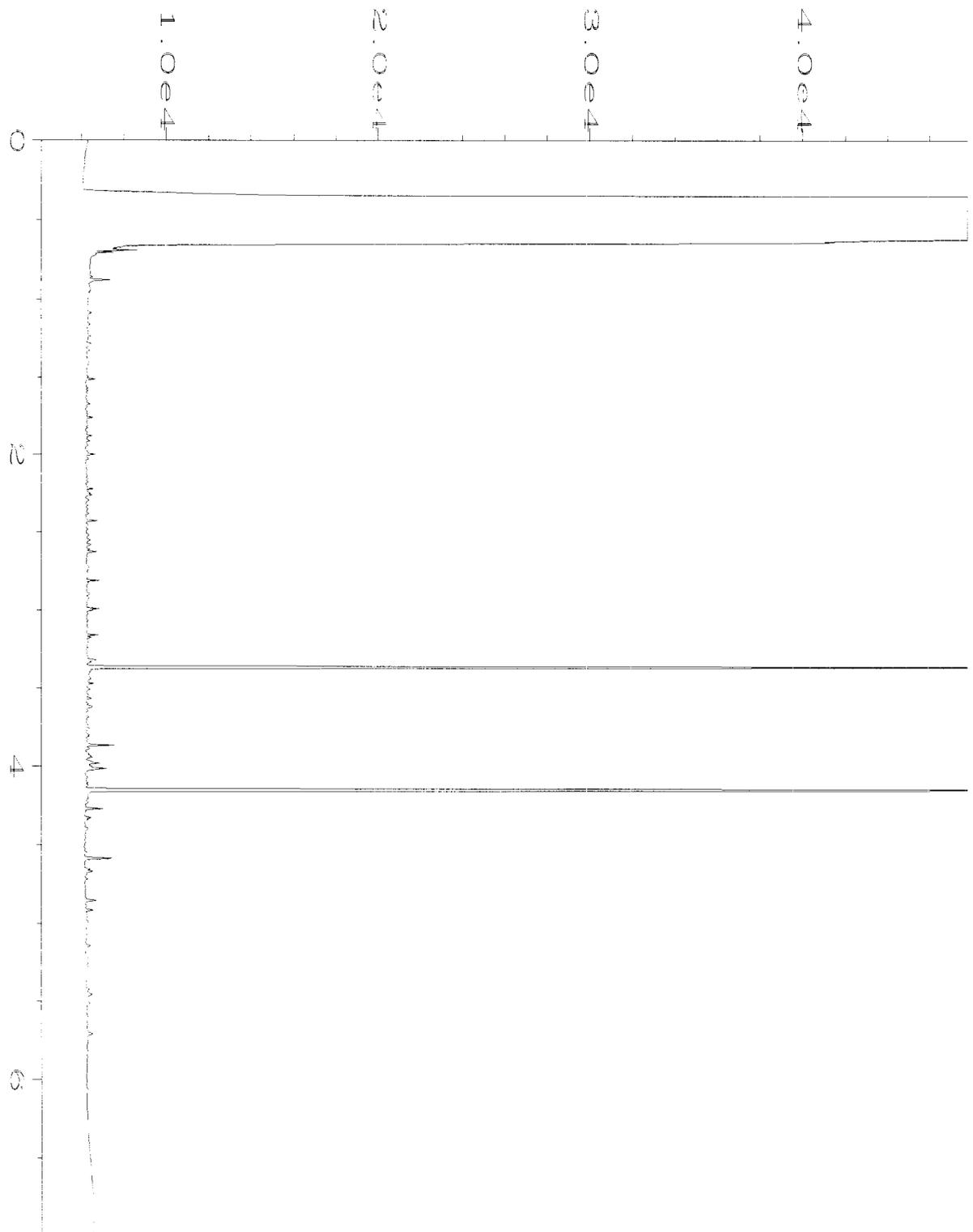
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

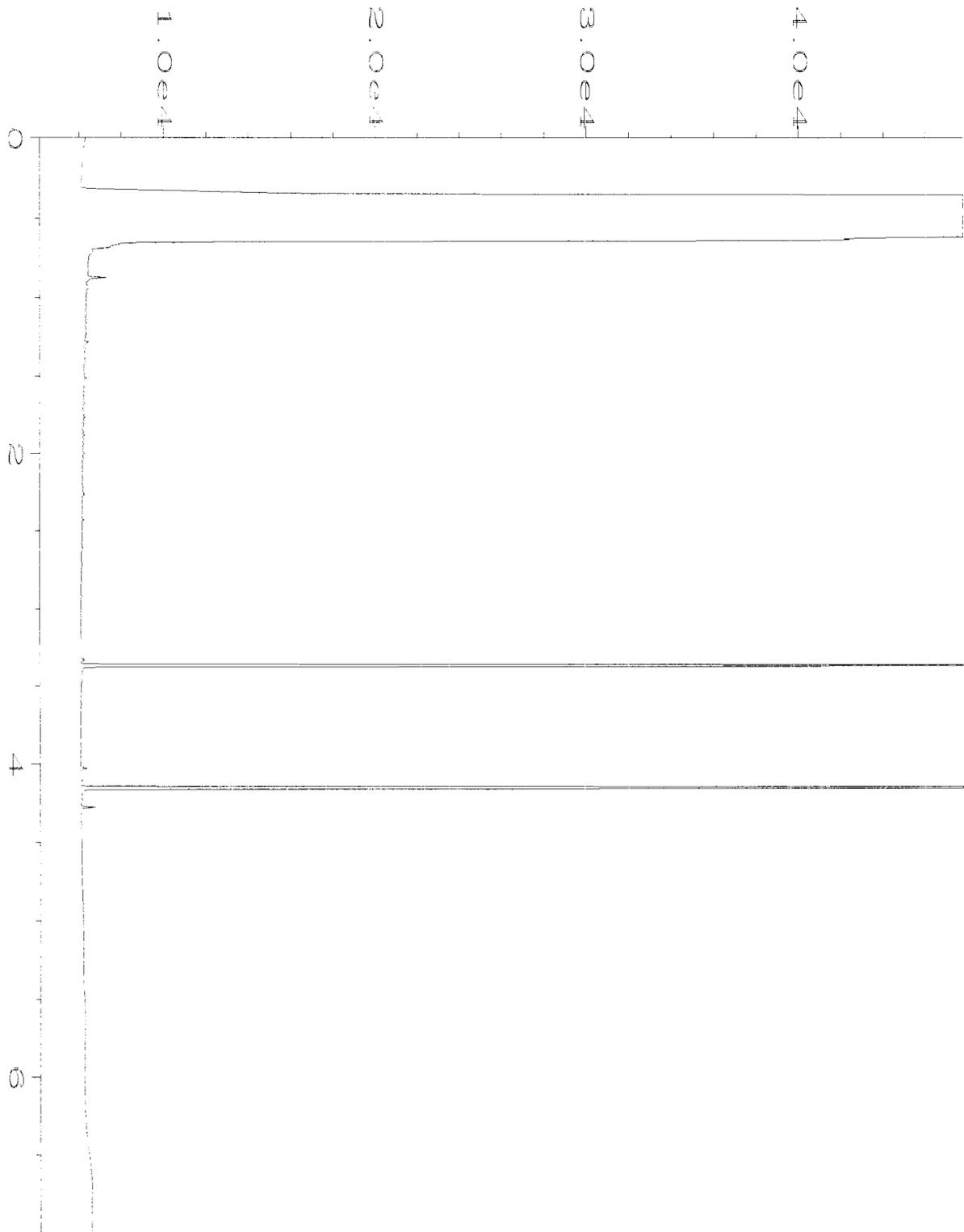
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

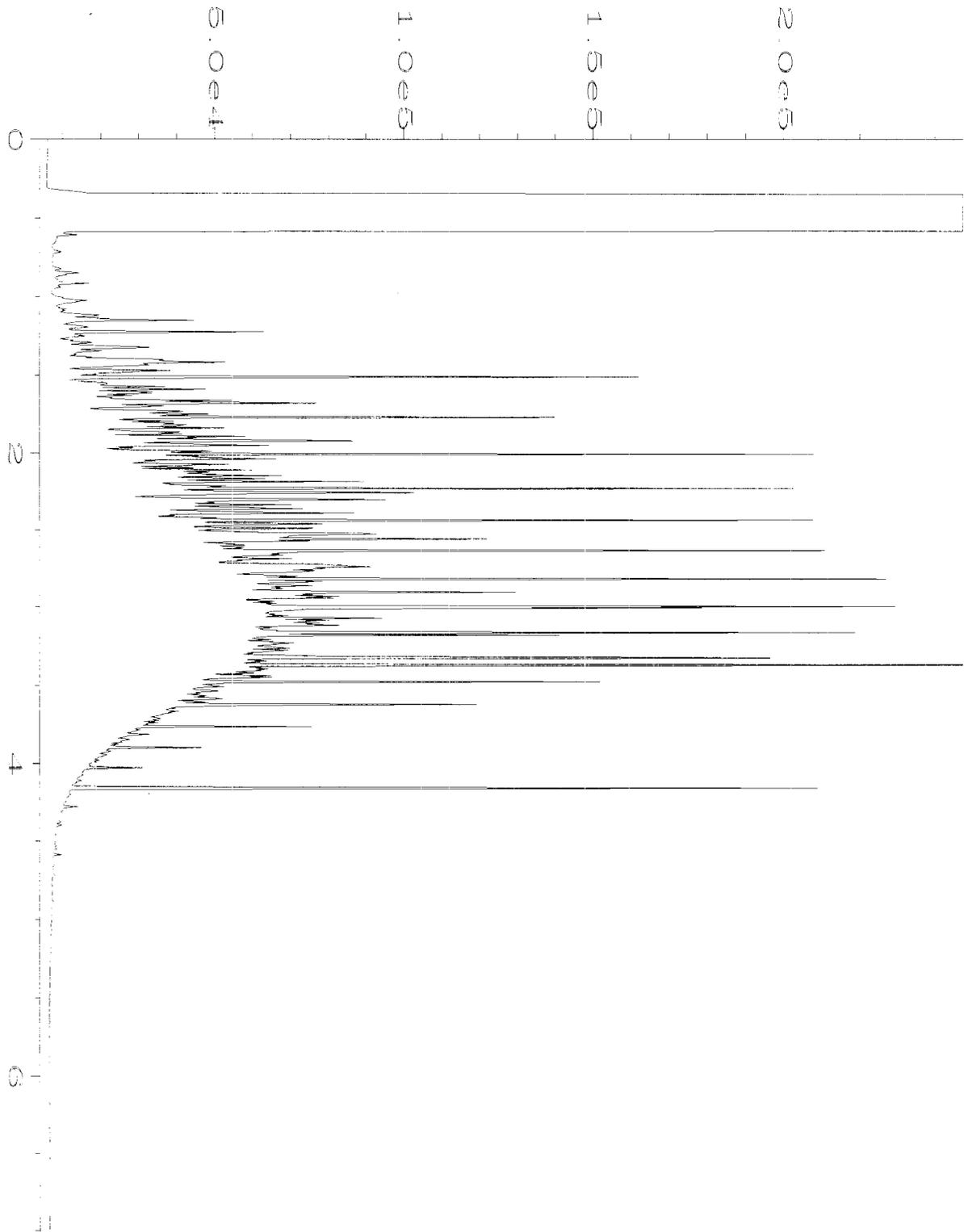
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\6\DATA\06-07-19\054F0901.D	Page Number	: 1
Operator	: TL	Vial Number	: 54
Instrument	: GC6	Injection Number	: 1
Sample Name	: 906075-02	Sequence Line	: 9
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 07 Jun 19 08:38 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	10 Jun 19 08:35 AM		



Data File Name	: C:\HPCHEM\6\DATA\06-07-19\050F0901.D	Page Number	: 1
Operator	: TL	Vial Number	: 50
Instrument	: GC6	Injection Number	: 1
Sample Name	: 09-1346 mb	Sequence Line	: 9
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 07 Jun 19 07:54 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	10 Jun 19 08:33 AM		



Data File Name	: C:\HPCHEM\6\DATA\06-07-19\005F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC6	Injection Number	: 1
Sample Name	: 1000 Dx 57-78B	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 07 Jun 19 02:39 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	10 Jun 19 08:33 AM		



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

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June 21, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on June 11, 2019 from the Aloha Cafe 180357, F&BI 906200 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0621R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 11, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 906200 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
906200 -01	MW-11-1
906200 -02	MW-11-6
906200 -03	MW-11-13
906200 -04	MW-11-18
906200 -05	MW-11-25
906200 -06	B-05-3
906200 -07	B-05-6
906200 -08	B-05-10.5
906200 -09	B-05-16
906200 -10	B-05-25
906200 -11	MW-12-3
906200 -12	MW-12-8
906200 -13	MW-12-11.5
906200 -14	MW-12-15
906200 -15	MW-12-25
906200 -16	B-06-6
906200 -17	B-06-8.5
906200 -18	B-06-10
906200 -19	B-06-13
906200 -20	B-06-25
906200 -21	MW-13-6
906200 -22	MW-13-11
906200 -23	MW-13-12.5
906200 -24	MW-13-18
906200 -25	MW-13-25
906200 -26	MW-14-10.5
906200 -27	MW-14-12.5
906200 -28	MW-14-17.5
906200 -29	MW-14-17.5-D
906200 -30	MW-14-22.5
906200 -31	MW-14-25
906200 -32	MW-14-27.5
906200 -33	MW-14-30

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

An 8260C internal standard failed the acceptance criteria for the direct sparge analysis of samples MW-11-1 and MW-11-6. The samples were diluted by methanolic extraction and reanalyzed with acceptable results. Both data sets were reported.

CASE NARRATIVE (continued)

Several compounds in the 8260C direct sparge laboratory control sample and laboratory control sample duplicate failed the acceptance criteria. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19  
 Date Received: 06/11/19  
 Project: Aloha Cafe 180357, F&BI 906200  
 Date Extracted: 06/13/19  
 Date Analyzed: 06/13/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES AND TPH AS GASOLINE  
 USING METHODS 8021B AND NWTPH-Gx**  
 Results Reported on a Dry Weight Basis  
 Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
MW-11-1 906200-01 1/10	<0.2	0.99	2.0	11	280	102
MW-11-6 906200-02 1/20	0.63	4.1	38	140	2,600	115
MW-11-13 906200-03	<0.02	0.031	0.025	0.12	<5	99
B-05-16 906200-09	<0.02	<0.02	<0.02	<0.06	<5	98
MW-12-15 906200-14	<0.02	<0.02	<0.02	<0.06	<5	100
B-06-13 906200-19	<0.02	<0.02	<0.02	<0.06	<5	100
MW-13-12.5 906200-23	<0.02	<0.02	<0.02	<0.06	<5	99
MW-14-12.5 906200-27	<0.02	<0.02	<0.02	<0.06	<5	99
Method Blank 09-1298 MB	<0.02	<0.02	<0.02	<0.06	<5	99

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19  
Date Received: 06/11/19  
Project: Aloha Cafe 180357, F&BI 906200  
Date Extracted: 06/13/19  
Date Analyzed: 06/13/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis  
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
MW-11-6 906200-02	240 x	<250	93
B-05-16 906200-09	<50	<250	92
MW-12-15 906200-14	<50	<250	91
B-06-13 906200-19	<50	<250	91
MW-13-12.5 906200-23	<50	<250	92
MW-14-12.5 906200-27	<50	<250	91
Method Blank 09-1385 MB	<50	<250	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-11-6	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/13/19	Lab ID:	906200-02
Date Analyzed:	06/13/19	Data File:	906200-02.056
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	8.76
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/13/19	Lab ID:	I9-365 mb
Date Analyzed:	06/13/19	Data File:	I9-365 mb.070
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	MW-11-1	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/13/19	Lab ID:	906200-01
Date Analyzed:	06/14/19	Data File:	061426.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	255 ip	50	150
4-Bromofluorobenzene	148 J	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dibromoethane (EDB)	<0.005
1,2-Dichloroethane (EDC)	<0.005
Naphthalene	0.31 ve J jl

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Direct Sparge

Client Sample ID:	MW-11-6	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/14/19	Lab ID:	906200-02
Date Analyzed:	06/14/19	Data File:	061427.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	118	50	150
Toluene-d8	741 ip	50	150
4-Bromofluorobenzene	428 ip	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005 J
1,2-Dibromoethane (EDB)	<0.005 J
1,2-Dichloroethane (EDC)	<0.005 J
Naphthalene	0.36 ve J jl

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Direct Sparge

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/14/19	Lab ID:	09-1332 mb
Date Analyzed:	06/14/19	Data File:	061408.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dibromoethane (EDB)	<0.005
1,2-Dichloroethane (EDC)	<0.005
Naphthalene	<0.005

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-1	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/13/19	Lab ID:	906200-01
Date Analyzed:	06/18/19	Data File:	061813.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	98	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Naphthalene	1.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-6	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/13/19	Lab ID:	906200-02
Date Analyzed:	06/18/19	Data File:	061814.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	107	65	139

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Naphthalene	7.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12-15	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/12/19	Lab ID:	906200-14
Date Analyzed:	06/12/19	Data File:	061219.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	93	107
Toluene-d8	100	87	110
4-Bromofluorobenzene	99	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-13-12.5	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/12/19	Lab ID:	906200-23
Date Analyzed:	06/12/19	Data File:	061220.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	93	107
Toluene-d8	100	87	110
4-Bromofluorobenzene	99	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-14-12.5	Client:	Aspect Consulting, LLC
Date Received:	06/11/19	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/12/19	Lab ID:	906200-27
Date Analyzed:	06/12/19	Data File:	061221.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	93	107
Toluene-d8	100	87	110
4-Bromofluorobenzene	98	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/18/19	Lab ID:	09-1431 mb
Date Analyzed:	06/18/19	Data File:	061808.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906200
Date Extracted:	06/12/19	Lab ID:	09-1327 mb
Date Analyzed:	06/12/19	Data File:	061211.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	93	107
Toluene-d8	98	87	110
4-Bromofluorobenzene	99	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/11/19

Project: Aloha Cafe 180357, F&BI 906200

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 906200-09 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	89	69-120
Toluene	mg/kg (ppm)	0.5	91	70-117
Ethylbenzene	mg/kg (ppm)	0.5	94	65-123
Xylenes	mg/kg (ppm)	1.5	95	66-120
Gasoline	mg/kg (ppm)	20	85	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/11/19

Project: Aloha Cafe 180357, F&BI 906200

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 906228-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	86	100	63-146	15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	88	79-144

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/11/19

Project: Aloha Cafe 180357, F&BI 906200

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 906200-02 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	8.10	93	89	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	101	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/11/19

Project: Aloha Cafe 180357, F&BI 906200

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260D DIRECT SPARGE**

Laboratory Code: 906232-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet wt)	Duplicate Result (Wet wt)	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.005	<0.005	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.005	<0.005	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.005	<0.005	nm
Naphthalene	mg/kg (ppm)	<0.005	<0.005	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	0.05	85	80	49-148	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	0.05	86	84	69-137	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	0.05	99	98	70-130	1
Naphthalene	mg/kg (ppm)	0.05	136 vo	99	70-130	31

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/11/19

Project: Aloha Cafe 180357, F&BI 906200

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 906094-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	41	38	10-91	8
Chloroethane	mg/kg (ppm)	2.5	<0.5	53	50	10-101	6
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	57	56	22-107	2
Methylene chloride	mg/kg (ppm)	2.5	<0.5	66	61	14-128	8
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	66	65	13-112	2
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	72	69	23-115	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	73	71	25-120	3
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	72	72	22-124	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	70	65	27-112	7
Trichloroethene	mg/kg (ppm)	2.5	<0.02	68	67	30-112	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	68	68	25-114	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	88	42-107
Chloroethane	mg/kg (ppm)	2.5	95	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	99	65-110
Methylene chloride	mg/kg (ppm)	2.5	97	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	98	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	101	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	101	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	104	72-116
Trichloroethene	mg/kg (ppm)	2.5	94	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	97	73-111

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/11/19

Project: Aloha Cafe 180357, F&BI 906200

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 906312-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	95	21-145
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	88	12-160
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	87	28-142
Naphthalene	mg/kg (ppm)	2.5	<0.05	91	14-157

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	104	106	60-123	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	99	56-135	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	95	98	74-132	3
Naphthalene	mg/kg (ppm)	2.5	104	106	63-140	2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

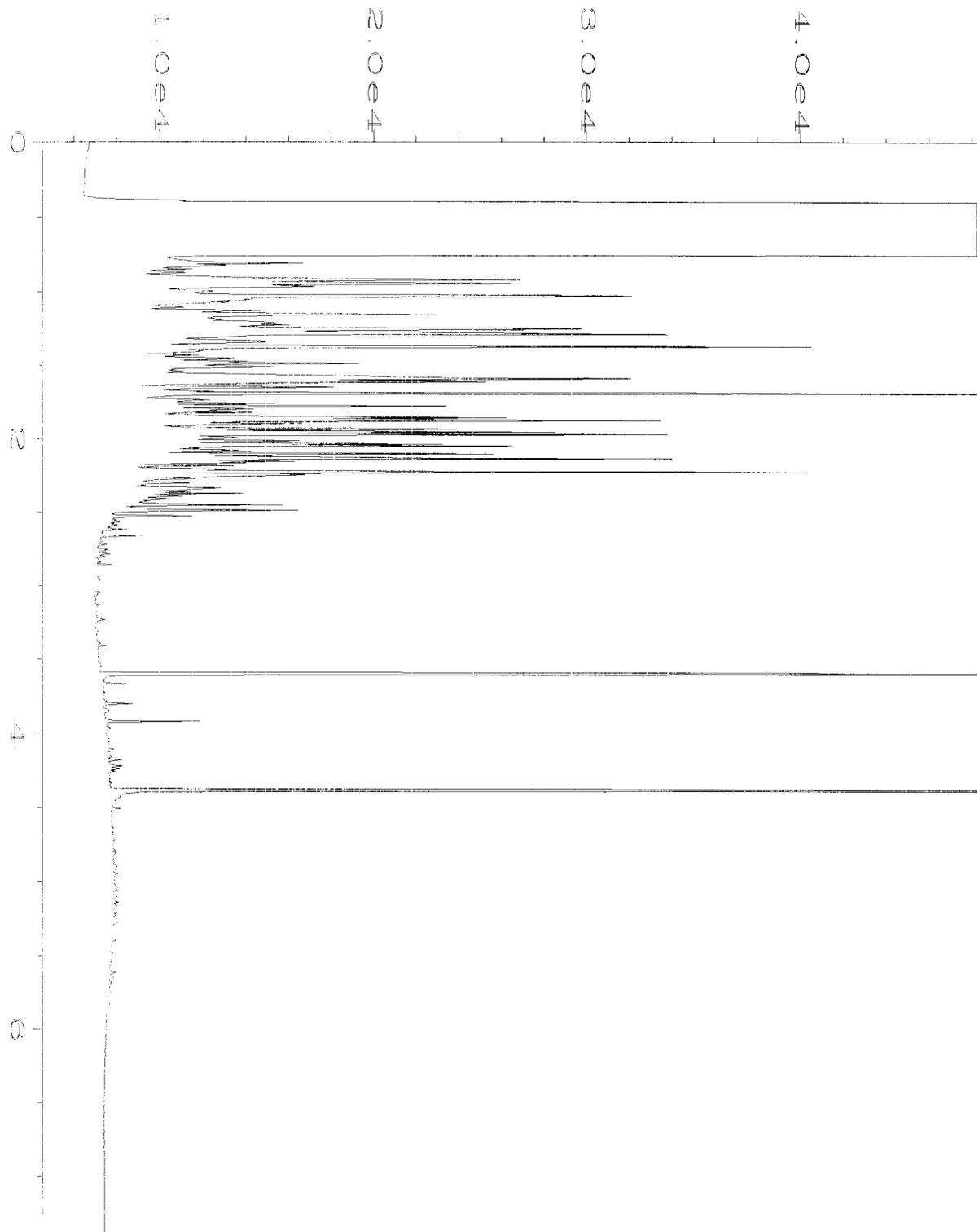
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

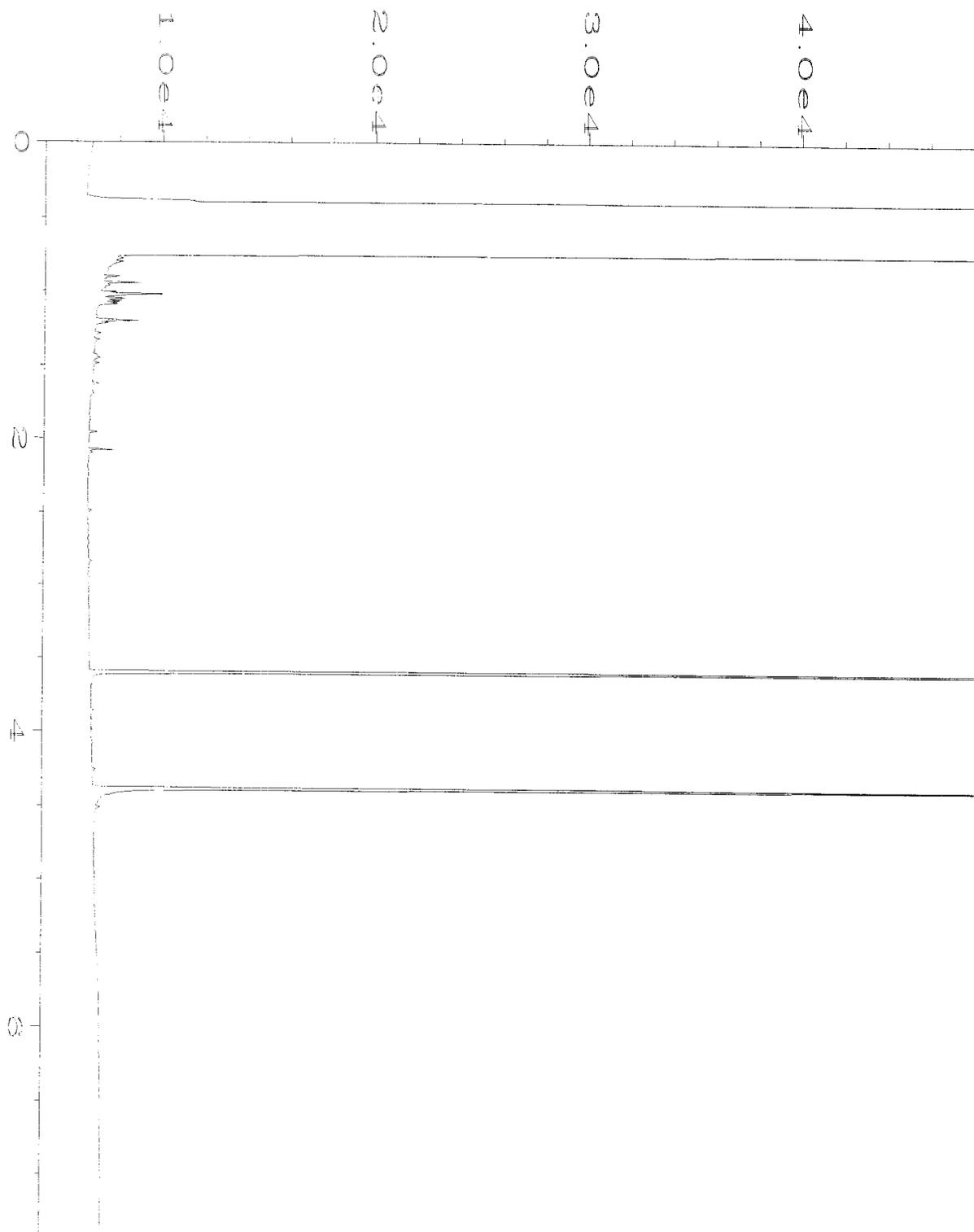
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

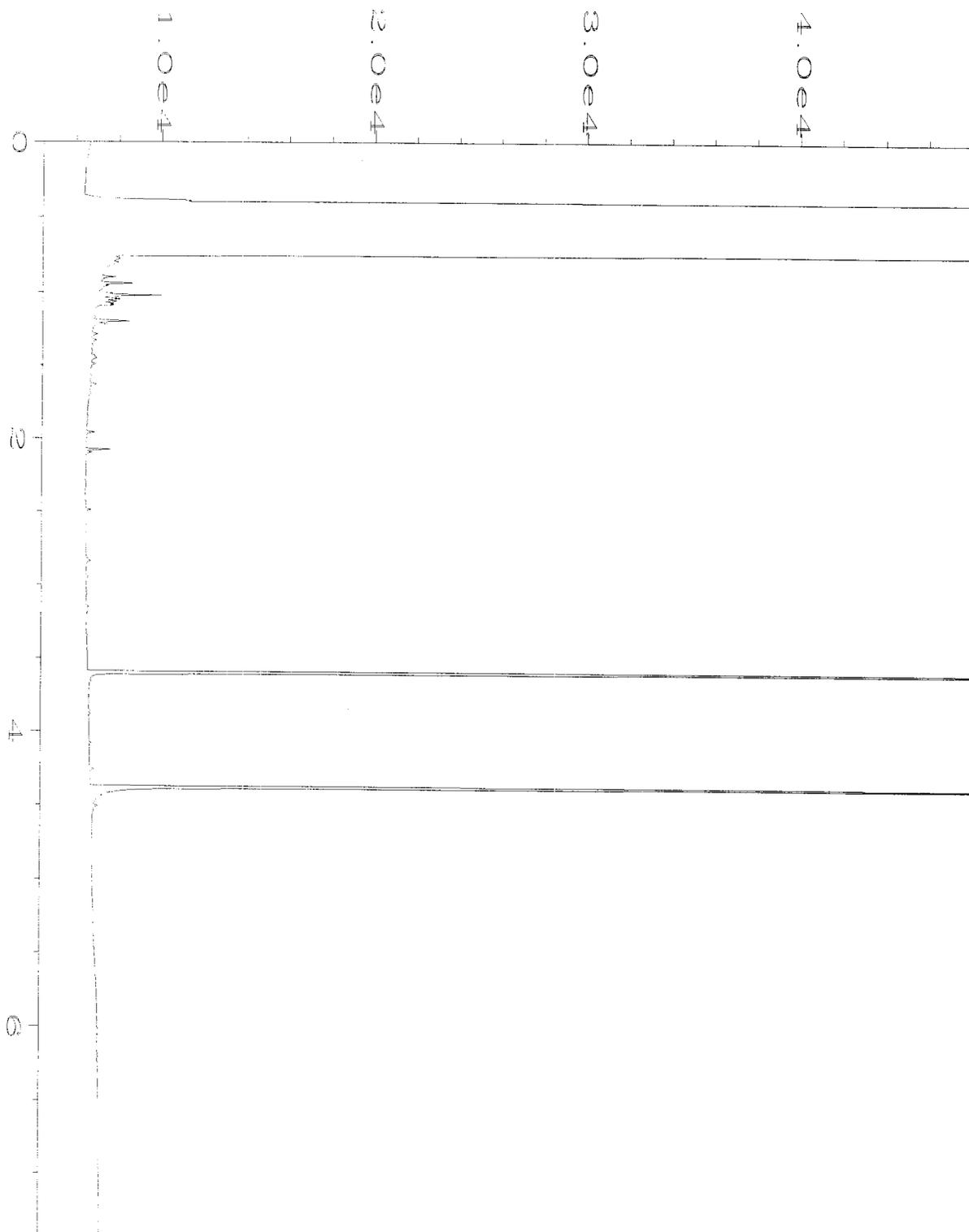
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



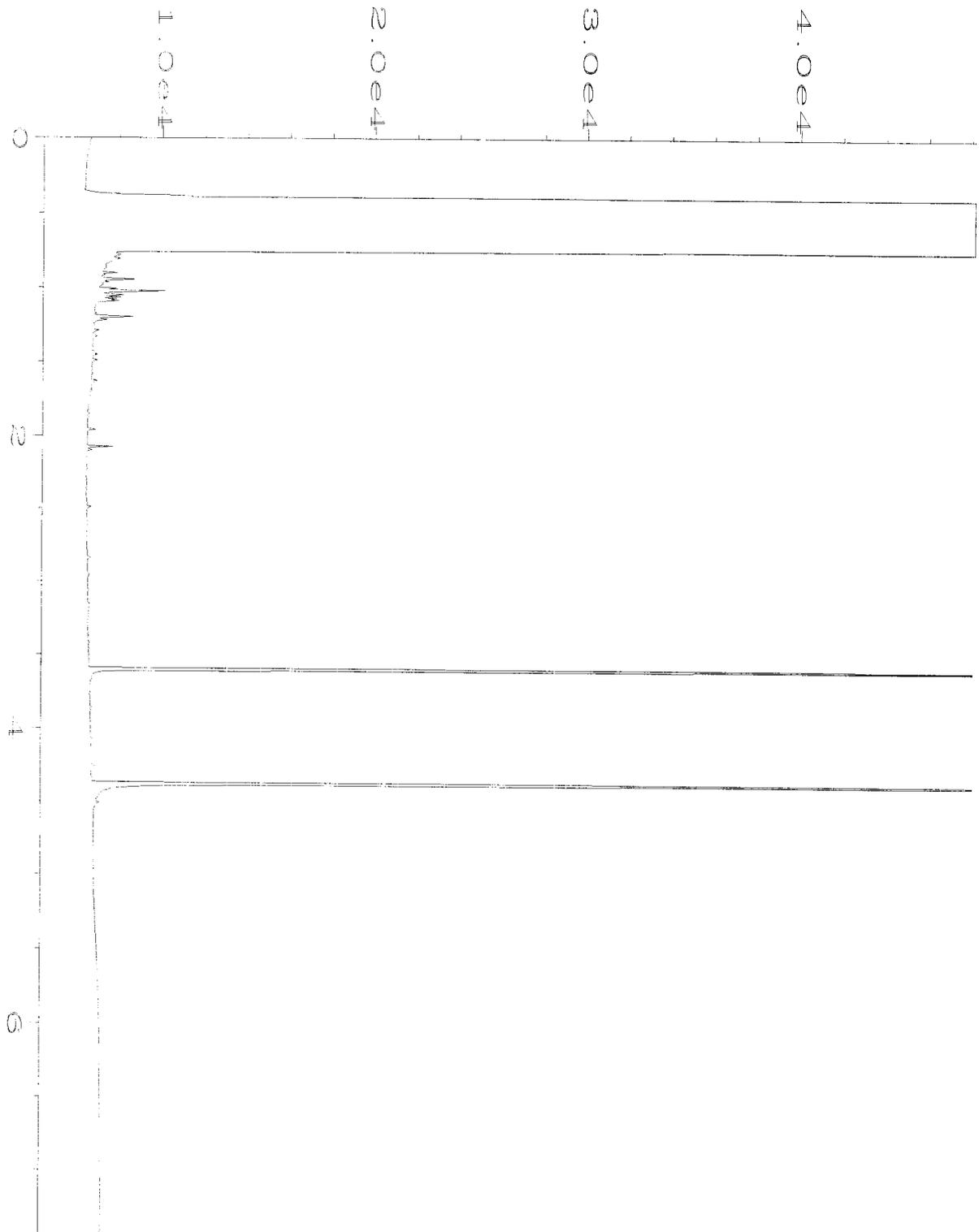
Data File Name	: C:\HPCHEM\1\DATA\06-13-19\024F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 24
Instrument	: GC1	Injection Number	: 1
Sample Name	: 906200-02	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 02:10 PM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:20 AM		



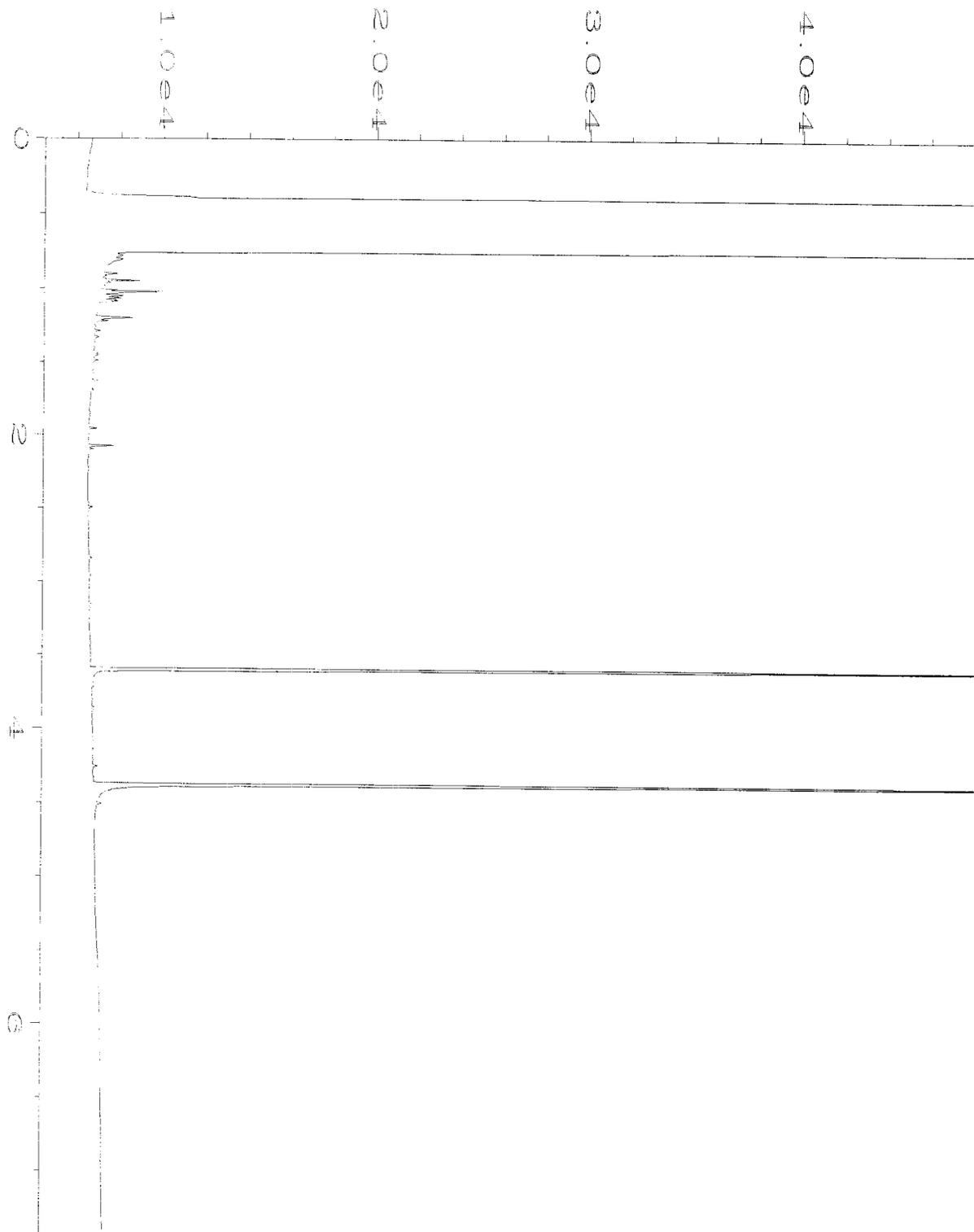
Data File Name	: C:\HPCHEM\1\DATA\06-13-19\025F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 25
Instrument	: GC1	Injection Number	: 1
Sample Name	: 906200-09	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 02:22 PM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:20 AM		



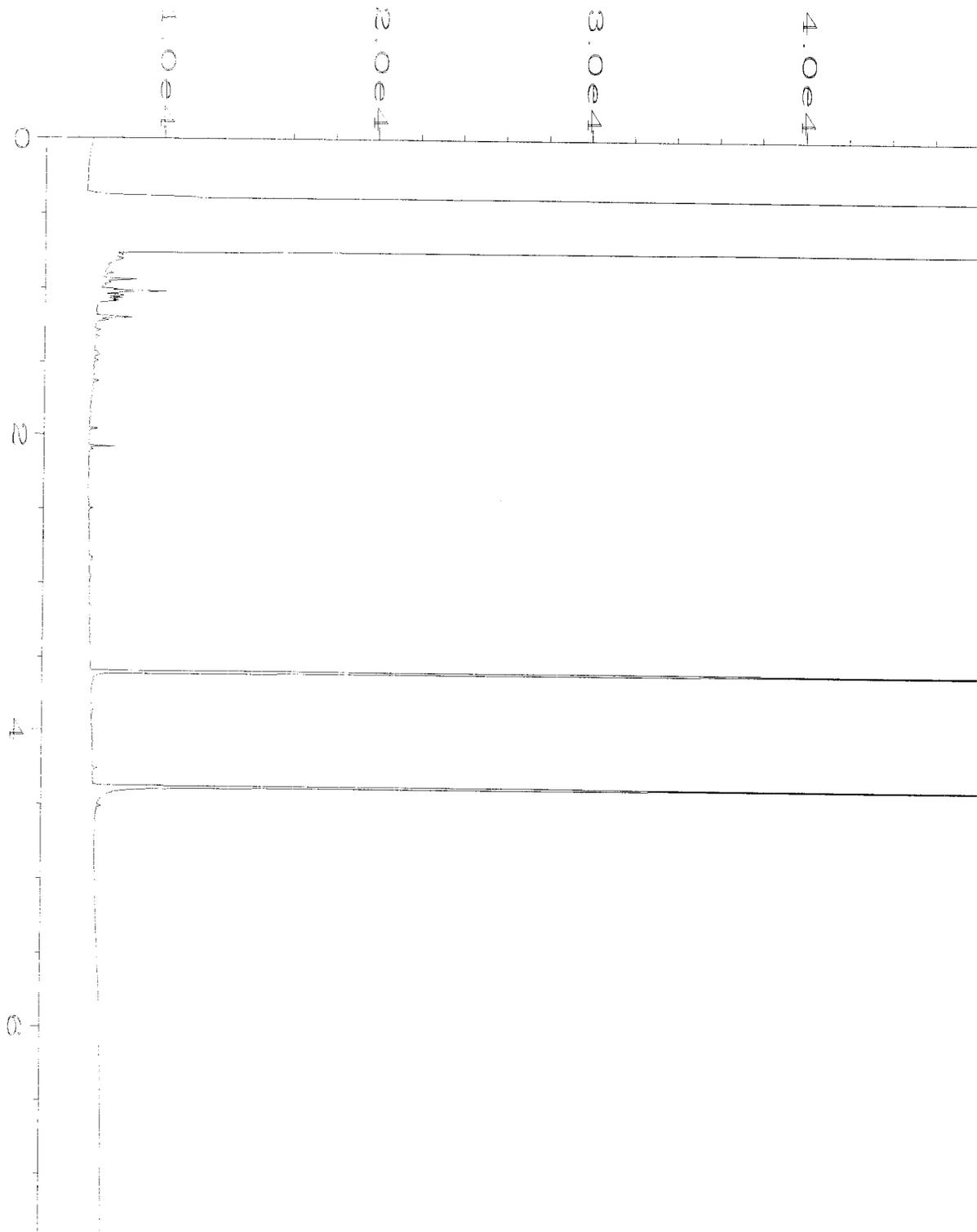
Data File Name	: C:\HPCHEM\1\DATA\06-13-19\026F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 26
Instrument	: GC1	Injection Number	: 1
Sample Name	: 906200-14	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 02:34 PM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:20 AM		



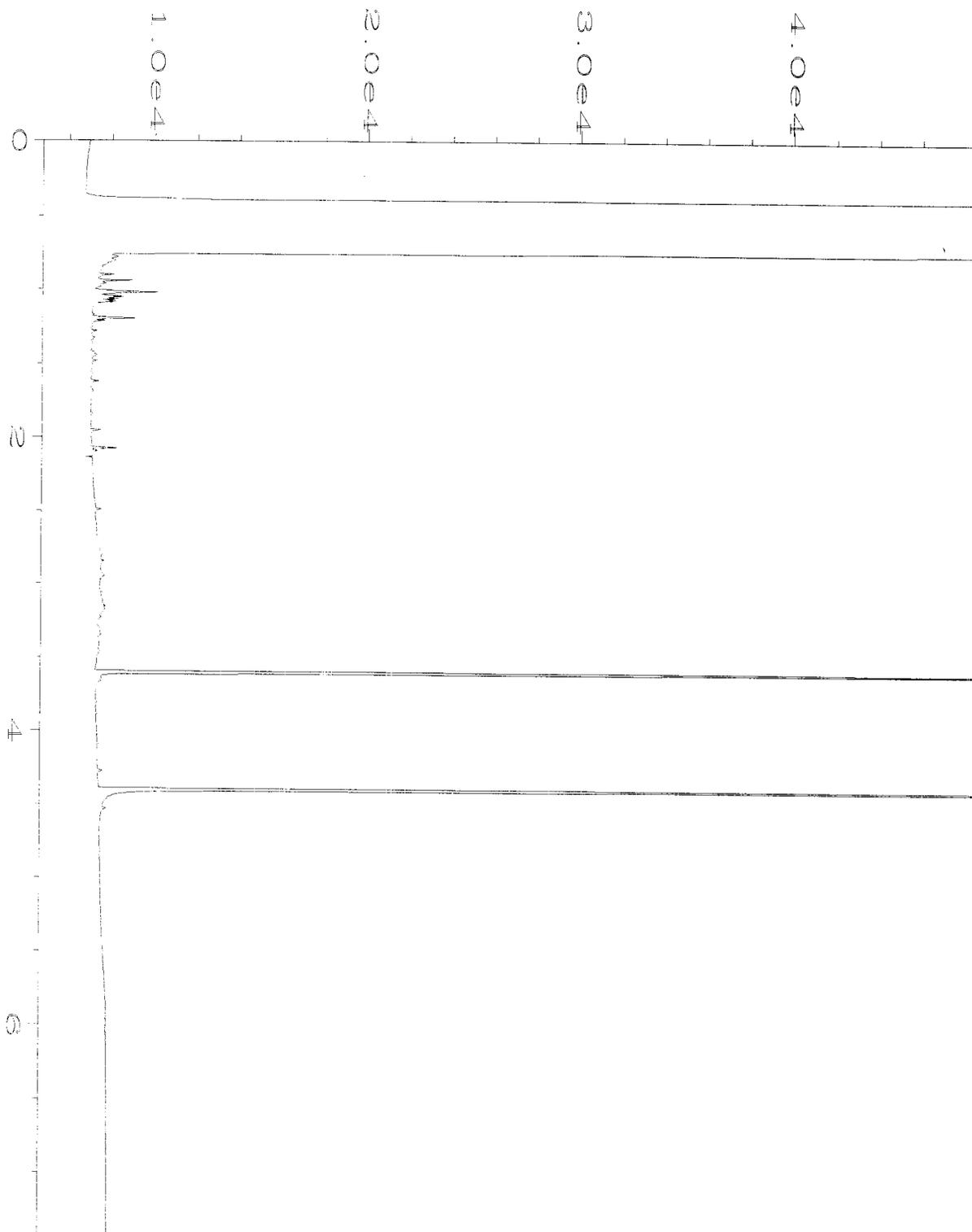
Data File Name	: C:\HPCHEM\1\DATA\06-13-19\027F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 27
Instrument	: GC1	Injection Number	: 1
Sample Name	: 906200-19	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 02:46 PM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:20 AM		



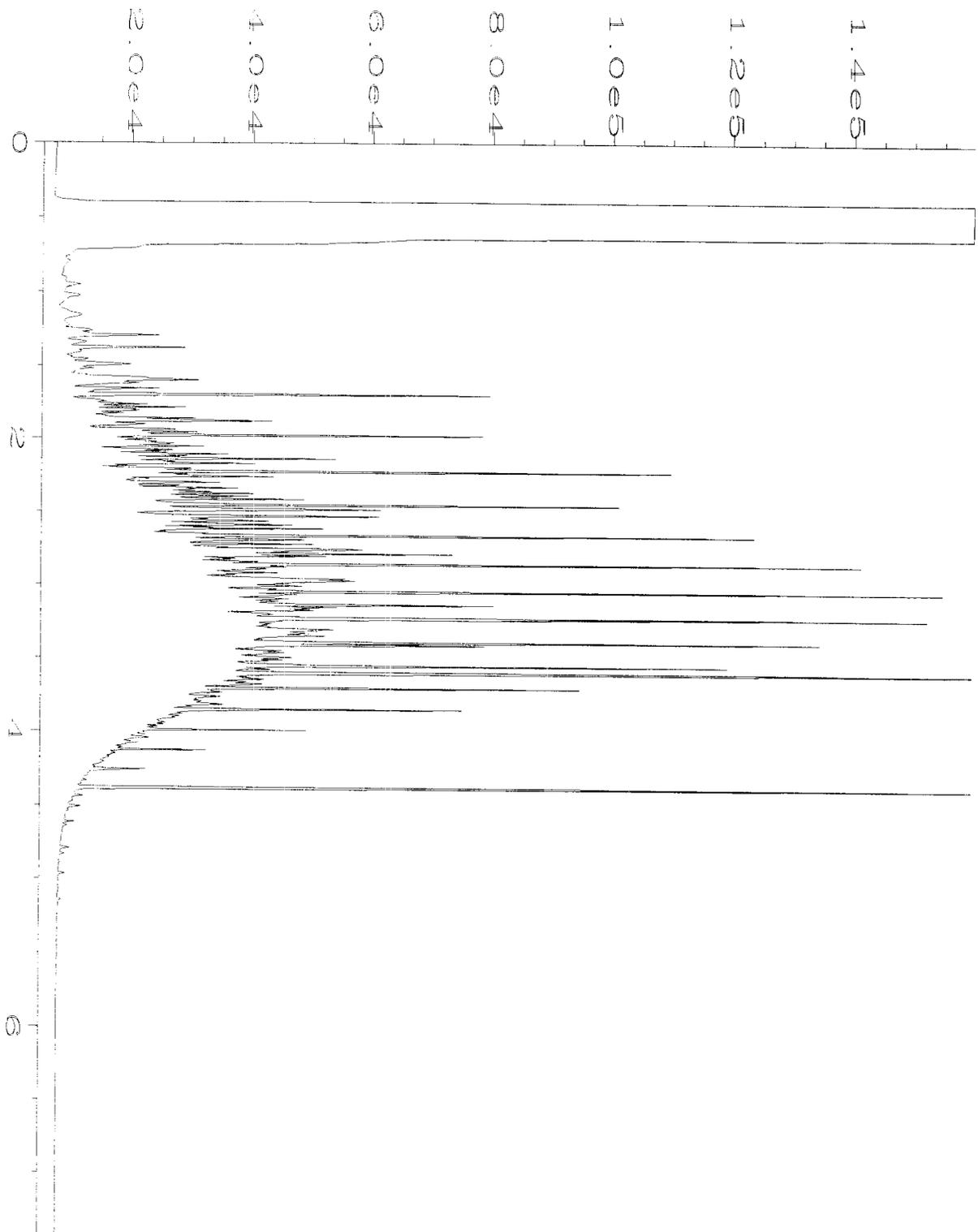
Data File Name	: C:\HPCHEM\1\DATA\06-13-19\028F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 28
Instrument	: GC1	Injection Number	: 1
Sample Name	: 906200-23	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 02:58 PM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:20 AM		



Data File Name	: C:\HPCHEM\1\DATA\06-13-19\029F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 29
Instrument	: GC1	Injection Number	: 1
Sample Name	: 906200-27	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 03:10 PM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:20 AM		



Data File Name	: C:\HPCHEM\1\DATA\06-13-19\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC1	Injection Number	: 1
Sample Name	: 09-1385 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 08:53 AM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:18 AM		



Data File Name	: C:\HPCHEM\1\DATA\06-13-19\003F0201.D	Page Number	: 1
Operator	: TL	Vial Number	: 3
Instrument	: GC1	Injection Number	: 1
Sample Name	: 500 Dx 57-78E	Sequence Line	: 2
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 07:19 AM	Analysis Method	: DX.MTH
Report Created on:	14 Jun 19 08:18 AM		

906260

SAMPLE CHAIN OF CUSTODY

ME 06-11-19

Page # 814 of 154

Report To Andrew Yankovskii

Company Aspect Consulting

Address 710 2nd Ave, Ste 550

City, State, ZIP Seattle, WA, 98104

Phone (206) 413-5411 Email ayankovskii@aspectconsulting.com

SAMPLERS (signature) <u>D. Dank</u>	
PROJECT NAME <u>Alpha Lake</u>	PO # <u>180357</u>
REMARKS <u>AP</u>	INVOICE TO <u>AP</u>

TURNAROUND TIME  
 Standard Turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL  
 Dispose after 30 days  
 Archive Samples  
 Other \_\_\_\_\_

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes				
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Hold pending Pb by GPO	MTDE, RDB, EDL Napth.						
MW-11-1	01A-E	6/10/19	0826	soil	5			X	X											
MW-11-6	02		0834					X	X											per AY
MW-11-13	03		0848					X	X											6/11/19 ME
MW-11-18	04		0904																	per AY
MW-11-25	05		0923																	6/12/19 ME
<del>B-05-3</del> B-05-3	06		1113																	
B-05-6	07		1119																	
B-05-105	08		1128																	
B-05-16	09		1144					X	X											Samples received at 2:00
B-05-25	10		1212																	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>David Dank</u>	<u>David Dank</u>	<u>Aspect Consulting</u>	<u>6/11/19</u>	<u>1:56</u>
<u>Mary Orr</u>	<u>MARY ORR</u>	<u>AP</u>	<u>✓</u>	<u>✓</u>
Received by:				
Relinquished by:				

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

906200

Report to: Andrew Vonhofski

Company: Aspect Consulting

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle, WA, 98104

Phone: 206 413-5711 Email: avonhofski@aspectconsulting.com

SAMPLE CHAIN OF CUSTODY ME 06-11-19

Page # 2 of 24  
By: V/SY BY

SAMPLERS (signature) <i>David Ulrich</i>	PROJECT NAME Alba Cafe	PO # 80357
REMARKS	INVOICE TO AP	

TURNAROUND TIME <input checked="" type="checkbox"/> Standard Turnaround <input type="checkbox"/> RUSH Rush charges authorized by: _____	SAMPLE DISPOSAL <input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other _____
--	--

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	
MW-12-3	11A+E	6/10/19	1331	Soil	5							X	Hold pending COCs by 8/26/06
MW-12-8	12-T		1345										
MW-12-115	13		1350										
MW-12-15	14		1356										X
MW-12-25	15		1432										X
B-06-6	16	6/11/19	0835	Soil	5								
B-06-88	17		0842										
B-06-10	18		0847										
B-06-13	19		0852										
B-06-25	20		0920										

Samples received at 2:00

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
<i>David Ulrich</i>		David Ulrich		Aspect Consulting		6/11/19	1:56
Received by: <i>David Ulrich</i>		Received by: <i>David Ulrich</i>		Received by: <i>David Ulrich</i>			
Relinquished by: <i>David Ulrich</i>		Relinquished by: <i>David Ulrich</i>		Relinquished by: <i>David Ulrich</i>			
Received by: _____		Received by: _____		Received by: _____			

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

906 200

SAMPLE CHAIN OF CUSTODY ME 06-11-19

Page# 3 of 34

Report To Andrew Yoshelski

Company Aspect Consulting

Address 710 2nd Ave Ste. 555

City, State, ZIP Seattle WA, 98104

Phone 206-435-5411 Email ayoshelski@aspectconsulting.com

SAMPLERS (signature) <u>Dave Lind</u>	PROJECT NAME	PO #
	<u>Alpha Cafe</u>	<u>180357</u>
REMARKS	INVOICE TO	
	<u>AP</u>	

TURNAROUND TIME	SAMPLE DISPOSAL
<input checked="" type="checkbox"/> Standard Turnaround	<input checked="" type="checkbox"/> Dispose after 30 days
<input type="checkbox"/> RUSH	<input type="checkbox"/> Archive Samples
Rush charges authorized by: _____	
<input type="checkbox"/> Other	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	
MU-13-G	21 A.E	6/11/19	6953	Soil	5							X	Hold pending VOCs by 8260
MU-13-11	22 T		1005									X	
MU-13-125	23		1011									X	
MU-13-18	24		1025									X	
MU-13-25	25		1041									X	
MU-14-105	26		1004									X	
MU-14-125	27		1311									X	
MU-14-17.5	28		1323									X	
MU-14-17.5-D	29		-									X	Samples received at 22°C
MU-14-22.5	30		1337									X	

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Reinquished by: <u>Dave Lind</u>		<u>Dave Lind</u>		<u>Aspect Consulting</u>		<u>6/11/19</u>	<u>656</u>
Received by: <u>Henry</u>		<u>Henry</u>		<u>HOOGS RECYCLED</u>			
Reinquished by:							
Received by:							



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

July 2, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on June 12, 2019 from the Aloha Cafe 180357, F&BI 906232 project. There are 10 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0702R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 12, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 906232 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
906232 -01	MW-15-7.5
906232 -02	MW-15-10.5
906232 -03	MW-15-13
906232 -04	MW-15-17.5
906232 -05	MW-15-25
906232 -06	B-07-6
906232 -07	B-07-8
906232 -08	B-07-12.5
906232 -09	B-07-22.5
906232 -10	B-07-25

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

Date Extracted: 06/26/19

Date Analyzed: 06/26/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (% Recovery) (Limit 58-139)
MW-15-17.5 906232-04	200	133
Method Blank 09-1491 mb	<5	116

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

Date Extracted: 06/26/19

Date Analyzed: 06/26/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
MW-15-17.5 906232-04	<50	<250	100
Method Blank 09-1536 MB	<50	<250	104

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-15-13	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/27/19	Lab ID:	906232-03 1/5
Date Analyzed:	06/27/19	Data File:	062720.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	98	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	0.70
Toluene	4.7
Ethylbenzene	10
m,p-Xylene	46
o-Xylene	18

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-15-17.5	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/26/19	Lab ID:	906232-04
Date Analyzed:	06/26/19	Data File:	062612.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	0.22
Toluene	0.096
Ethylbenzene	0.19
m,p-Xylene	0.88
o-Xylene	0.31

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/26/19	Lab ID:	09-1500 mb
Date Analyzed:	06/26/19	Data File:	062609.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	98	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-Gx**

Laboratory Code: 906512-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	100	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 906512-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	106	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/02/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 906266-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benzene	mg/kg (ppm)	2.5	<0.03	69	29-129
Toluene	mg/kg (ppm)	2.5	<0.05	64	35-130
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	68	32-137
m,p-Xylene	mg/kg (ppm)	5	<0.1	68	34-136
o-Xylene	mg/kg (ppm)	2.5	<0.05	72	33-134

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	2.5	95	100	68-114	5
Toluene	mg/kg (ppm)	2.5	93	96	66-126	3
Ethylbenzene	mg/kg (ppm)	2.5	97	102	64-123	5
m,p-Xylene	mg/kg (ppm)	5	99	104	78-122	5
o-Xylene	mg/kg (ppm)	2.5	101	103	77-124	2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

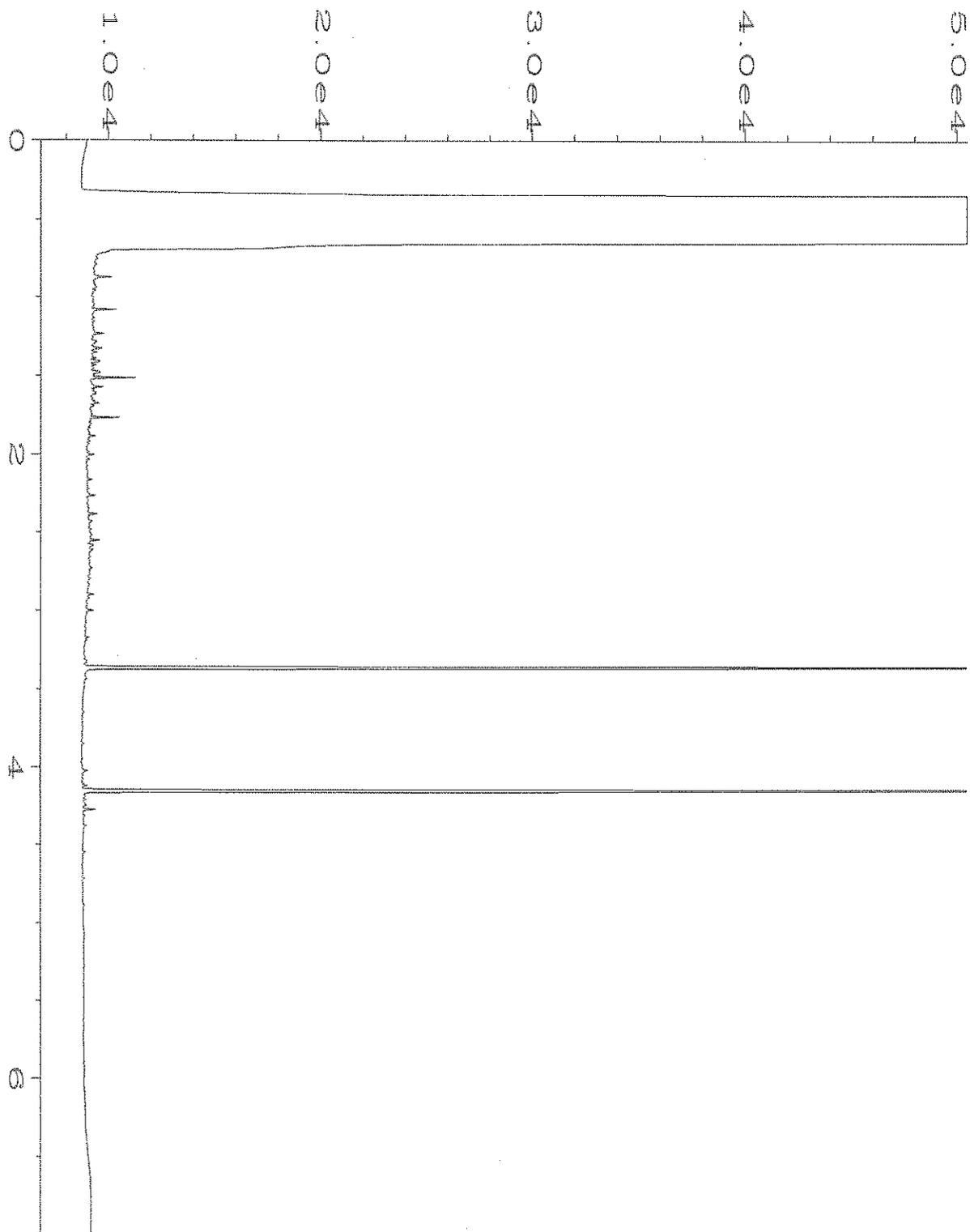
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

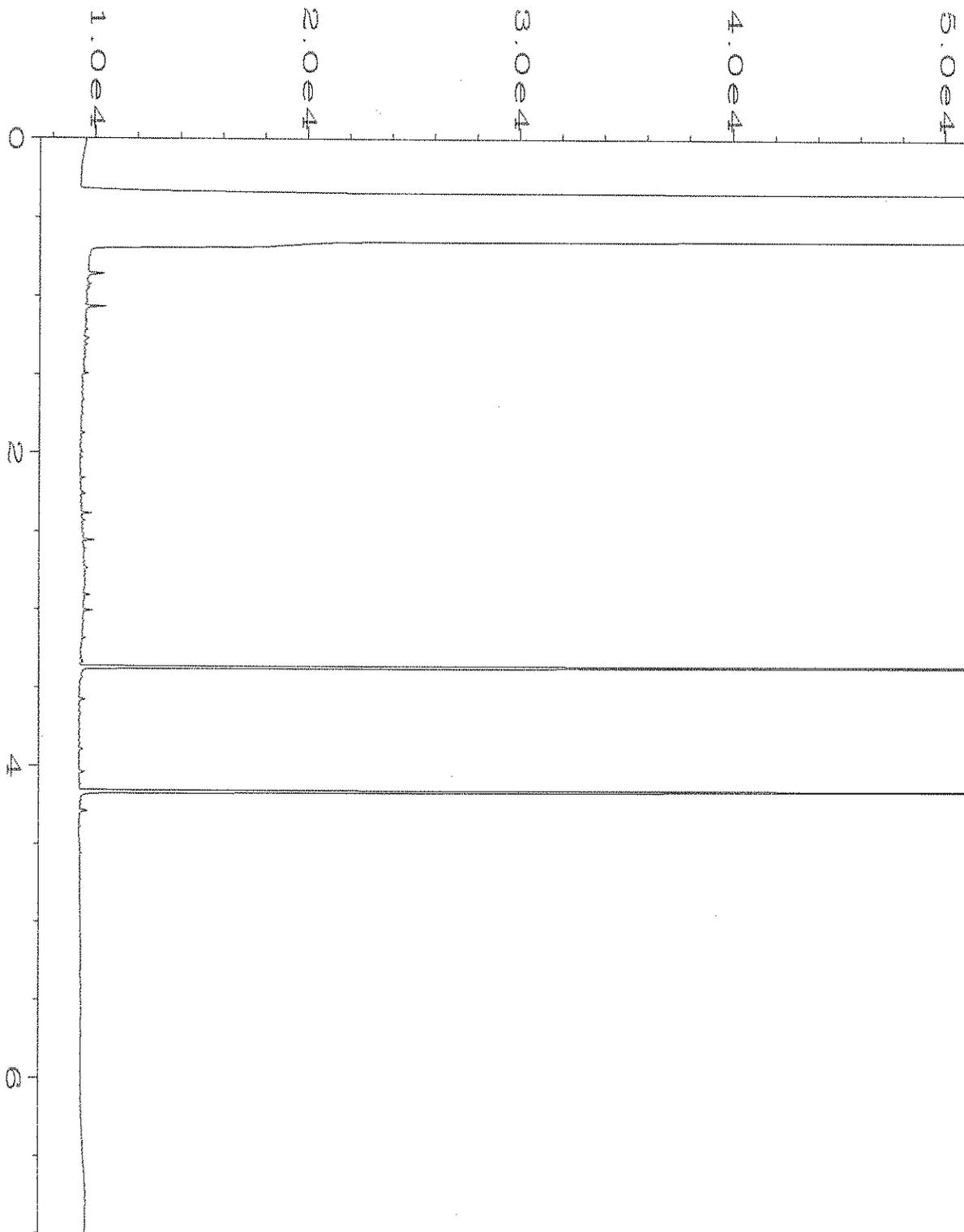
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

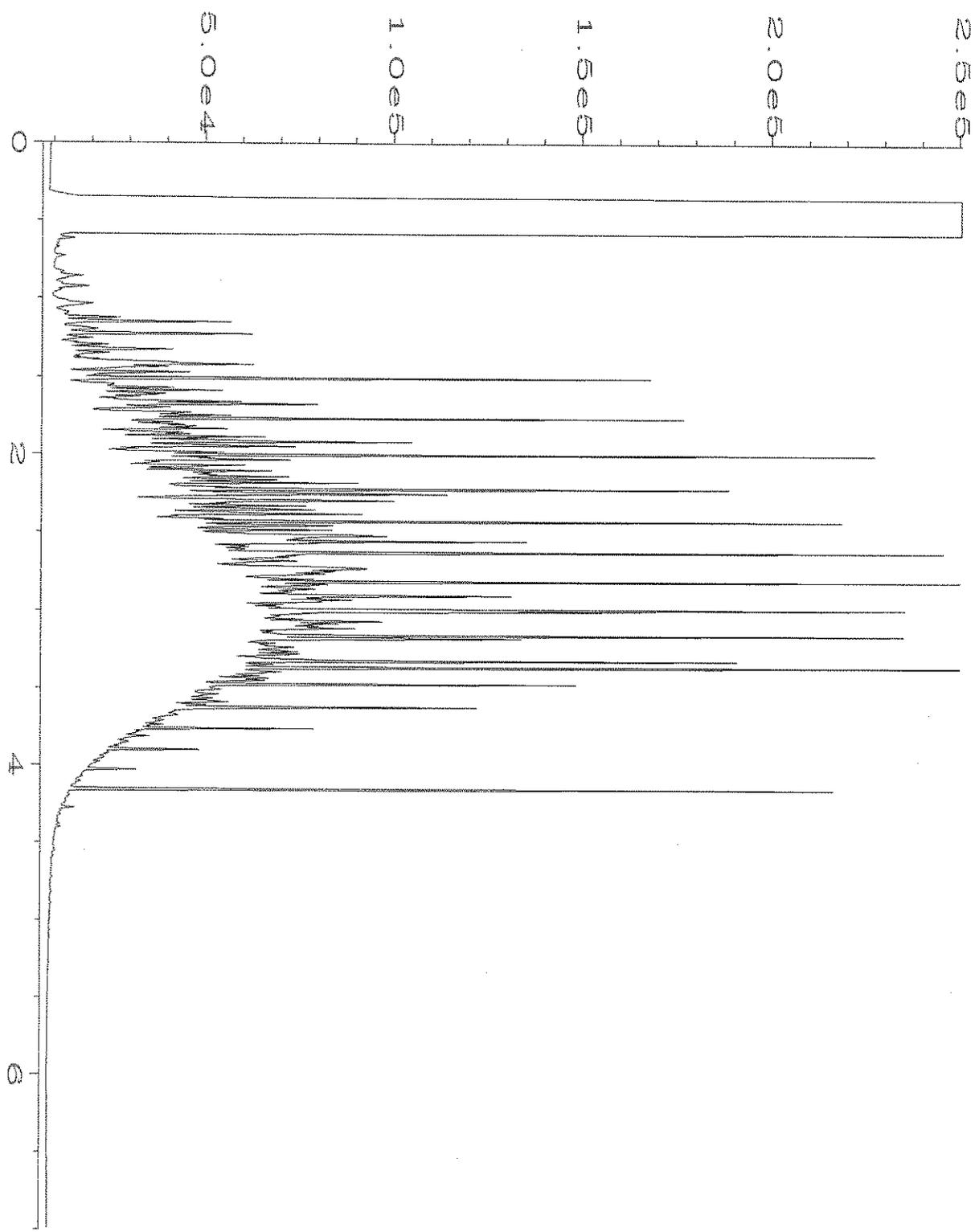
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\6\DATA\06-26-19\037F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 37
Instrument	: GC6	Injection Number	: 1
Sample Name	: 906232-04	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 26 Jun 19 06:03 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	27 Jun 19 08:05 AM		



Data File Name	: C:\HPCHEM\6\DATA\06-26-19\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC6	Injection Number	: 1
Sample Name	: 09-1536 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 26 Jun 19 10:21 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	27 Jun 19 08:02 AM		



Data File Name	: C:\HPCHEM\6\DATA\06-26-19\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC6	Injection Number	: 1
Sample Name	: 1000 Dx 57-78B	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 26 Jun 19 02:41 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	27 Jun 19 08:03 AM		

906232

SAMPLE CHAIN OF CUSTODY

ME 06-12-19

VS2/B03

Report To: Andrew Yankofsky  
 Company: Aspect Consulting  
 Address: 710 2nd Ave. Ste 550  
 City, State, ZIP: Seattle, WA, 98104  
 Phone: (206) 413-5411 Email: ayankofsky@aspectconsulting.com

SAMPLERS (signature) David Hawk  
 PROJECT NAME: Alaska Lake  
 REMARKS: 180357  
 PO #: AP  
 INVOICE TO: AP

TURNAROUND TIME: 1 of 1  
 SAMPLE DISPOSAL:  
 Standard Turnaround  
 RUSH  
 Dispose after 30 days  
 Archive Samples  
 Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 821B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Hold pending	LCOCs by 8260	Pb by 6010	
MW-15-75	01A-E	6/11/19	0914	soil	5	X	X	X				X			X	X-per AY
MW-15-10.5	02		0920			X	X	X							X	6/13/19 ME
MW-15-13	03		0926			X	X	X							X	X-per AG
MW-15-17.5	04		0937			X	X	X							X	6/25/19 ME
MW-15-25	05		0956			X	X	X								
B-07-6	06		1331													
B-07-8	07		1337												X	
B-07-12.5	08		1349			X	X	X							X	
B-07-22.5	09		1419													
B-07-25	10		1425													

REINQUISHED BY: David Hawk SIGNATURE: [Signature] PRINT NAME: David Hawk  
 RECEIVED BY: [Signature] COMPANY: Aspect Consulting DATE: 6/11/19 TIME: 1703  
 RECEIVED BY: [Signature] COMPANY: HOLD REWAVED DATE: 7/2/19 TIME: 1703  
 RECEIVED BY: [Signature] COMPANY: [Signature] DATE: 3 TIME: 00

Friedman & Bruja, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

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June 21, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on June 12, 2019 from the Aloha Cafe 180357, F&BI 906232 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0621R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 12, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 906232 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
906232 -01	MW-15-7.5
906232 -02	MW-15-10.5
906232 -03	MW-15-13
906232 -04	MW-15-17.5
906232 -05	MW-15-25
906232 -06	B-07-6
906232 -07	B-07-8
906232 -08	B-07-12.5
906232 -09	B-07-22.5
906232 -10	B-07-25

An 8260C internal standard failed the acceptance criteria for the direct sparge analysis of samples MW-15-10.5 and MW-15-13. The samples were diluted by methanolic extraction and reanalyzed with acceptable results. Both data sets were reported.

Several compounds in the 8260C direct sparge laboratory control sample and laboratory control sample duplicate failed the acceptance criteria. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19  
Date Received: 06/12/19  
Project: Aloha Cafe 180357, F&BI 906232  
Date Extracted: 06/17/19  
Date Analyzed: 06/17/19 and 06/18/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis  
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-15-7.5 906232-01	<5	88
MW-15-10.5 906232-02 1/20	6,500	ip
MW-15-13 906232-03 1/50	3,400	120
MW-15-25 906232-05	<5	89
B-07-8 906232-07	87	ip
B-07-12.5 906232-08	<5	86
Method Blank 09-1405 MB	<5	83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

Date Extracted: 06/13/19

Date Analyzed: 06/13/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
MW-15-7.5 906232-01	<50	<250	84
MW-15-10.5 906232-02	1,500 x	590	81
MW-15-13 906232-03	990 x	370	84
MW-15-25 906232-05	<50	<250	86
B-07-8 906232-07	<50	<250	84
B-07-12.5 906232-08	<50	<250	85
Method Blank 09-1393 MB	<50	<250	84

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-15-10.5	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/13/19	Lab ID:	906232-02
Date Analyzed:	06/18/19	Data File:	906232-02.059
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	1.88
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-15-13	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/13/19	Lab ID:	906232-03
Date Analyzed:	06/18/19	Data File:	906232-03.060
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	1.93
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-07-8	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/13/19	Lab ID:	906232-07
Date Analyzed:	06/18/19	Data File:	906232-07.061
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	1.44
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/13/19	Lab ID:	I9-365 mb
Date Analyzed:	06/13/19	Data File:	I9-365 mb.070
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	MW-15-7.5	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	906232-01
Date Analyzed:	06/14/19	Data File:	061419.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dibromoethane (EDB)	<0.005
1,2-Dichloroethane (EDC)	<0.005
Naphthalene	<0.005

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	MW-15-10.5	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	906232-02
Date Analyzed:	06/14/19	Data File:	061425.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95 J	50	150
Toluene-d8	608 J ip	50	150
4-Bromofluorobenzene	2673 J ip	150	

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005 J
1,2-Dibromoethane (EDB)	<0.005 J
1,2-Dichloroethane (EDC)	<0.005 J
Naphthalene	0.091 J jl

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	MW-15-13	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	906232-03
Date Analyzed:	06/14/19	Data File:	061424.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	50	150
Toluene-d8	273 ip	50	150
4-Bromofluorobenzene	1029 J ip	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dibromoethane (EDB)	<0.005 J
1,2-Dichloroethane (EDC)	<0.005
Naphthalene	0.19 J ve jl

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Direct Sparge

Client Sample ID:	MW-15-25	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	906232-05
Date Analyzed:	06/14/19	Data File:	061422.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration mg/kg (ppm)
Benzene	0.026
Toluene	<0.005
Ethylbenzene	<0.005
m,p-Xylene	<0.01
o-Xylene	<0.005

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	B-07-8	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	906232-07
Date Analyzed:	06/14/19	Data File:	061423.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	117	50	150
4-Bromofluorobenzene	116	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dibromoethane (EDB)	<0.005
1,2-Dichloroethane (EDC)	<0.005
Naphthalene	<0.005

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	B-07-12.5	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	906232-08
Date Analyzed:	06/14/19	Data File:	061421.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dibromoethane (EDB)	<0.005
1,2-Dichloroethane (EDC)	<0.005
Naphthalene	<0.005

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/14/19	Lab ID:	09-1332 mb
Date Analyzed:	06/14/19	Data File:	061408.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.005
1,2-Dichloroethane (EDC)	<0.005
1,2-Dibromoethane (EDB)	<0.005
Benzene	<0.003
Toluene	<0.005
Ethylbenzene	<0.005
m,p-Xylene	<0.01
o-Xylene	<0.005
Naphthalene	<0.005

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-15-10.5	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/18/19	Lab ID:	906232-02
Date Analyzed:	06/19/19	Data File:	061913.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	62	145
Toluene-d8	103	55	145
4-Bromofluorobenzene	130	65	139

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Naphthalene	6.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-15-13	Client:	Aspect Consulting, LLC
Date Received:	06/12/19	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/18/19	Lab ID:	906232-03
Date Analyzed:	06/19/19	Data File:	061914.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	102	55	145
4-Bromofluorobenzene	116	65	139

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Naphthalene	4.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 906232
Date Extracted:	06/18/19	Lab ID:	09-1431 mb
Date Analyzed:	06/18/19	Data File:	061808.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	99	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Naphthalene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-Gx**

Laboratory Code: 906262-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 906230-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	94	90	90	73-135	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	84	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 906200-02 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	8.10	93	89	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	101	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C DIRECT SPARGE**

Laboratory Code: 906232-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet wt)	Duplicate Result (Wet wt)	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.005	<0.005	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.005	<0.005	nm
Benzene	mg/kg (ppm)	<0.003	0.0034	nm
Toluene	mg/kg (ppm)	<0.005	<0.005	nm
1,2-Dibromoethane (EDB)	mg/kg (ppm)	<0.005	<0.005	nm
Ethylbenzene	mg/kg (ppm)	<0.005	<0.005	nm
m,p-Xylene	mg/kg (ppm)	<0.01	<0.01	nm
o-Xylene	mg/kg (ppm)	<0.005	<0.005	nm
Naphthalene	mg/kg (ppm)	<0.005	<0.005	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Hexane	mg/kg (ppm)	0.05	60 vo	62 vo	70-130	3
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	0.05	85	80	49-148	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	0.05	86	84	69-137	2
Benzene	mg/kg (ppm)	0.05	90	87	67-138	3
Toluene	mg/kg (ppm)	0.05	95	90	12-185	5
1,2-Dibromoethane (EDB)	mg/kg (ppm)	0.05	99	98	70-130	1
Ethylbenzene	mg/kg (ppm)	0.05	126	95	70-130	28 vo
m,p-Xylene	mg/kg (ppm)	0.1	163 vo	96	70-130	52 vo
o-Xylene	mg/kg (ppm)	0.05	100	94	70-130	6
Naphthalene	mg/kg (ppm)	0.05	136 vo	99	70-130	31 vo

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/21/19

Date Received: 06/12/19

Project: Aloha Cafe 180357, F&BI 906232

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 906312-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	95	21-145
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	88	12-160
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	87	28-142
Naphthalene	mg/kg (ppm)	2.5	<0.05	91	14-157

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	104	106	60-123	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	99	56-135	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	95	98	74-132	3
Naphthalene	mg/kg (ppm)	2.5	104	106	63-140	2

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

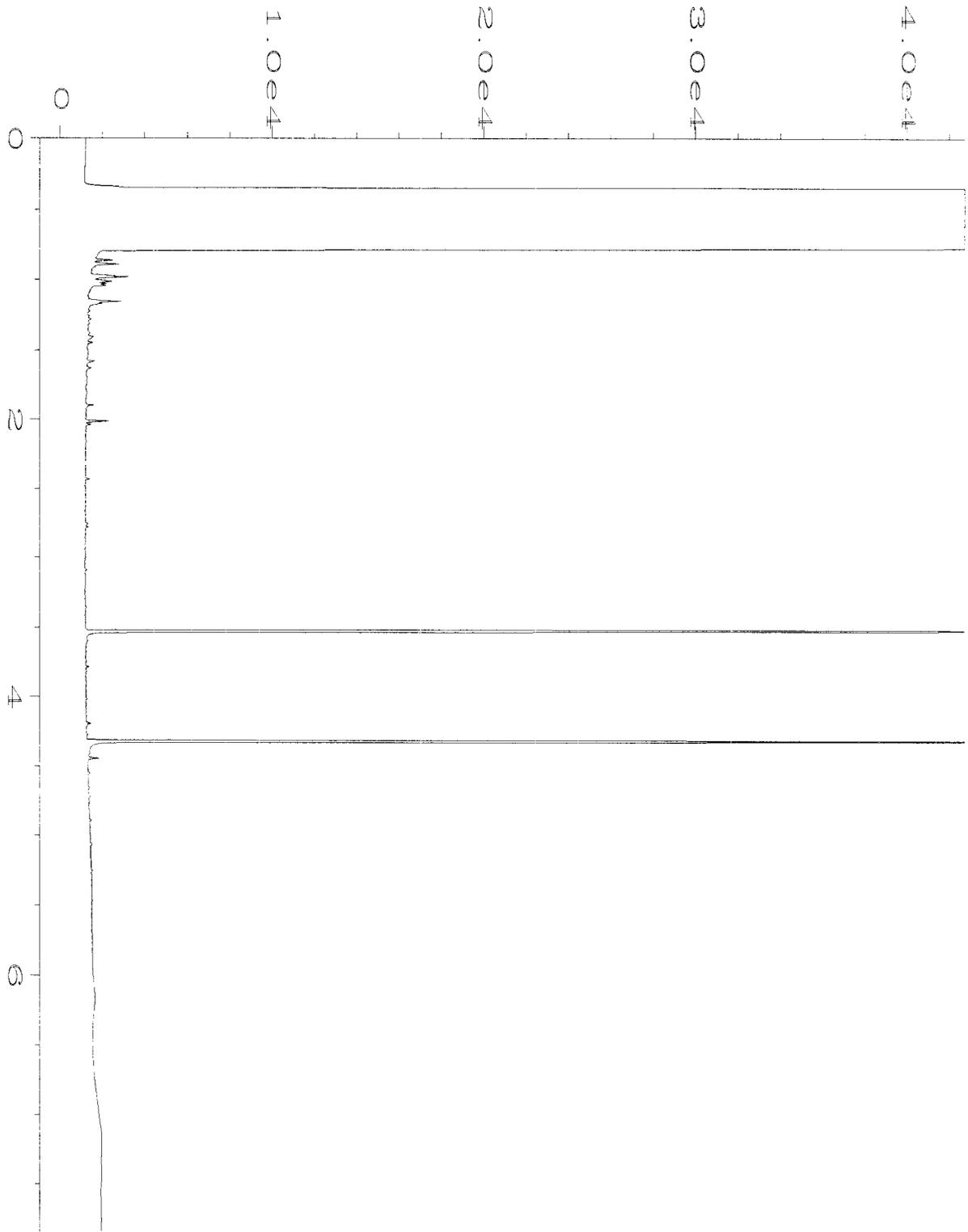
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

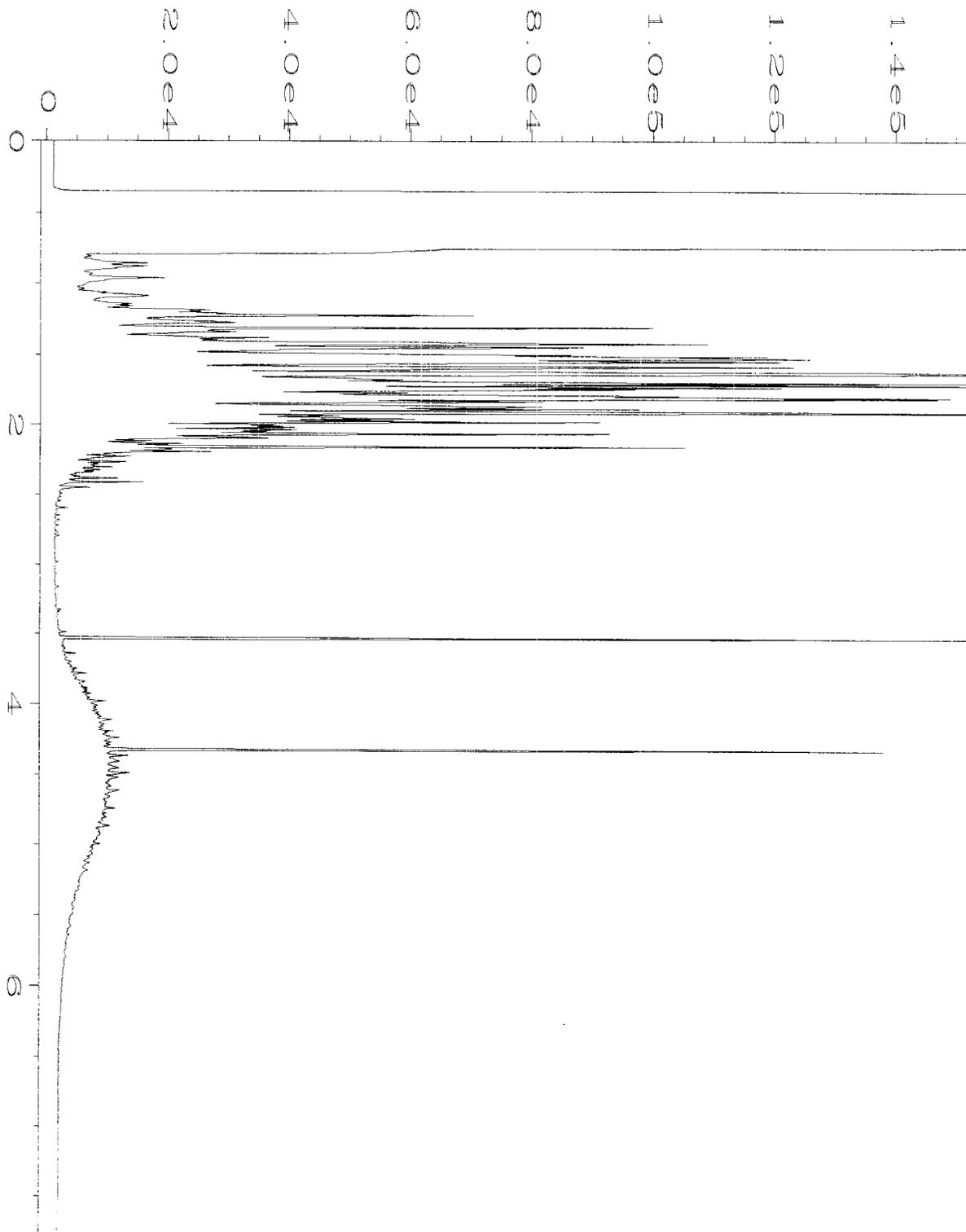
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

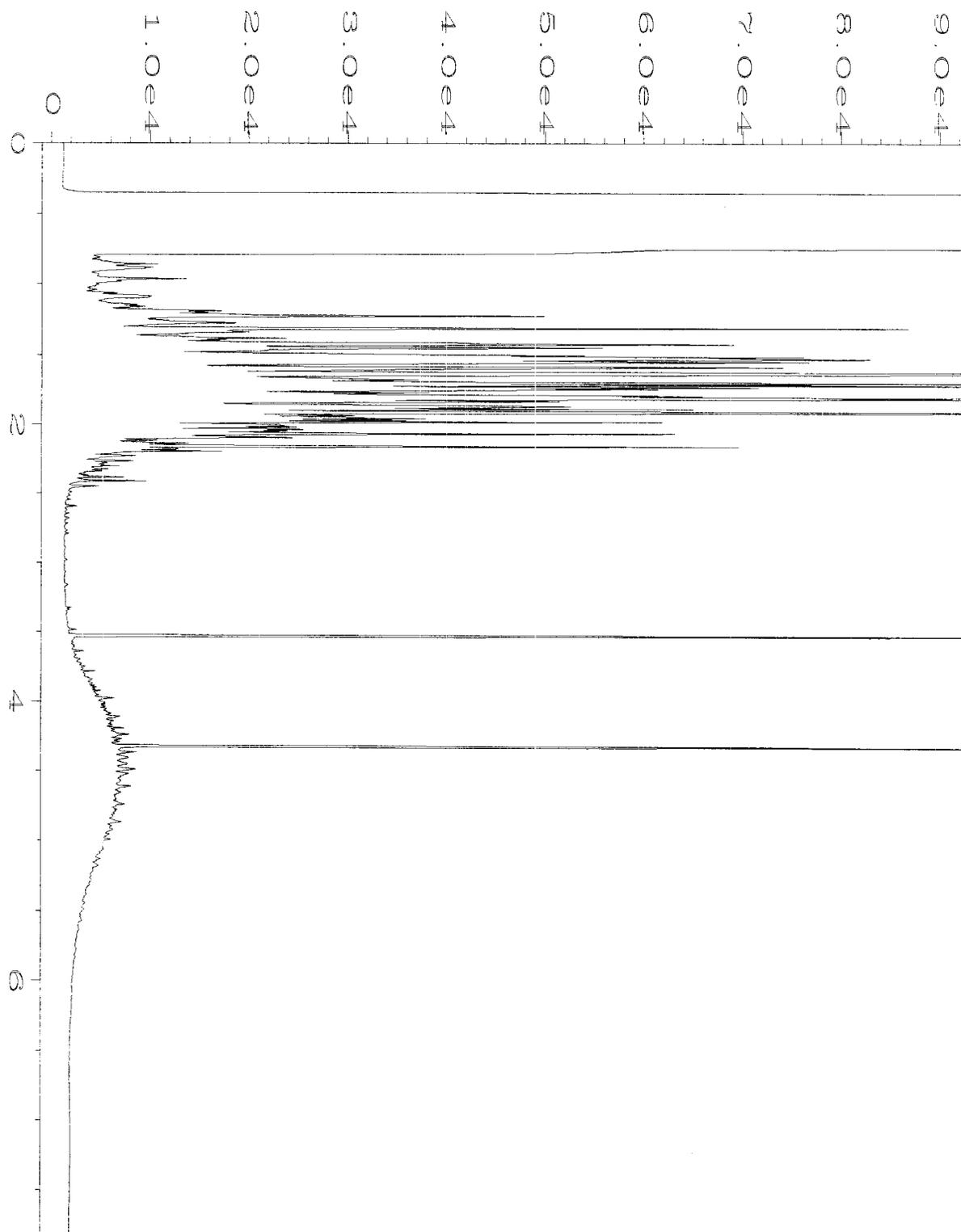
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



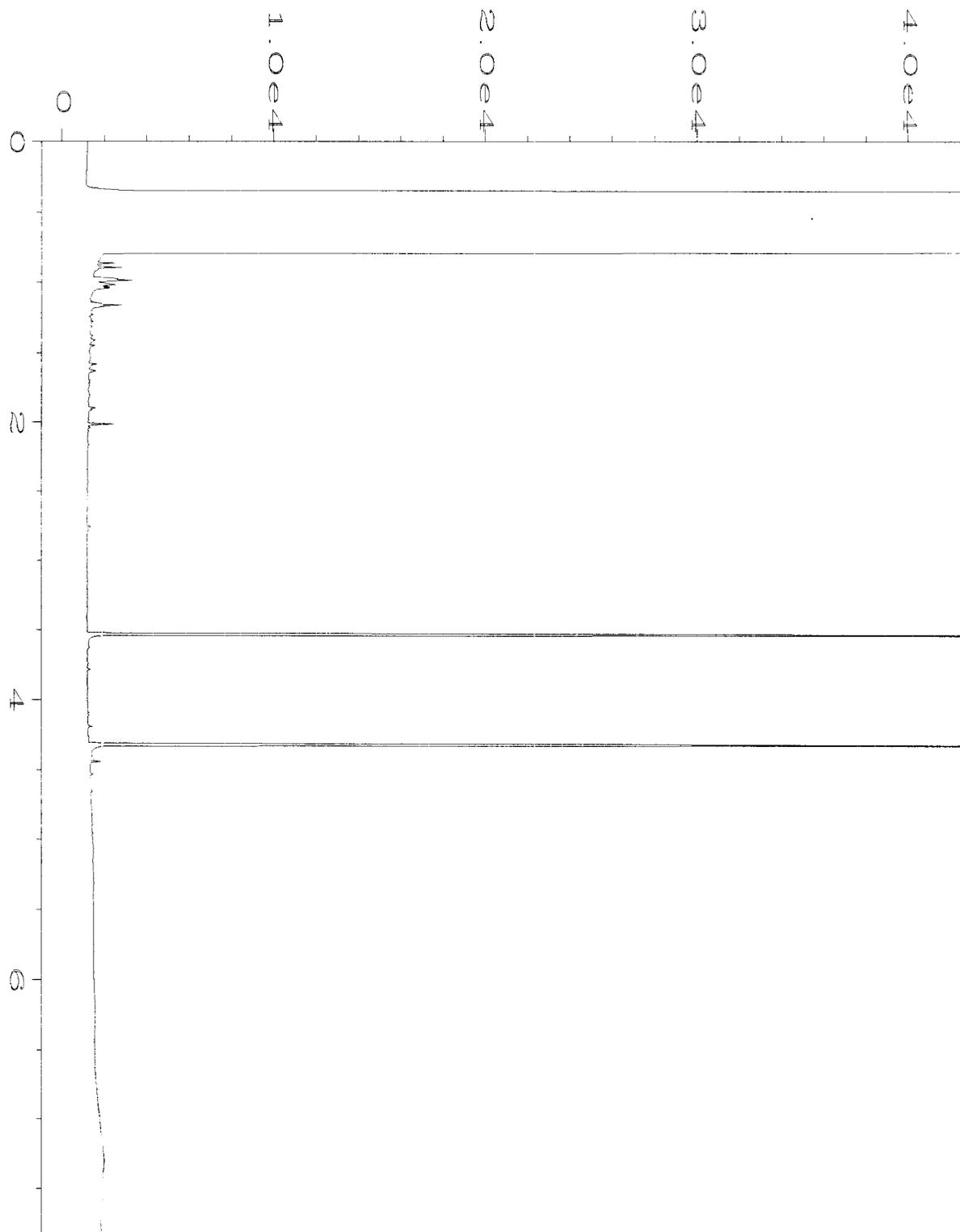
Data File Name	: C:\HPCHEM\4\DATA\06-13-19\041F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 41
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 906232-01	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 07:46 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:52 AM		



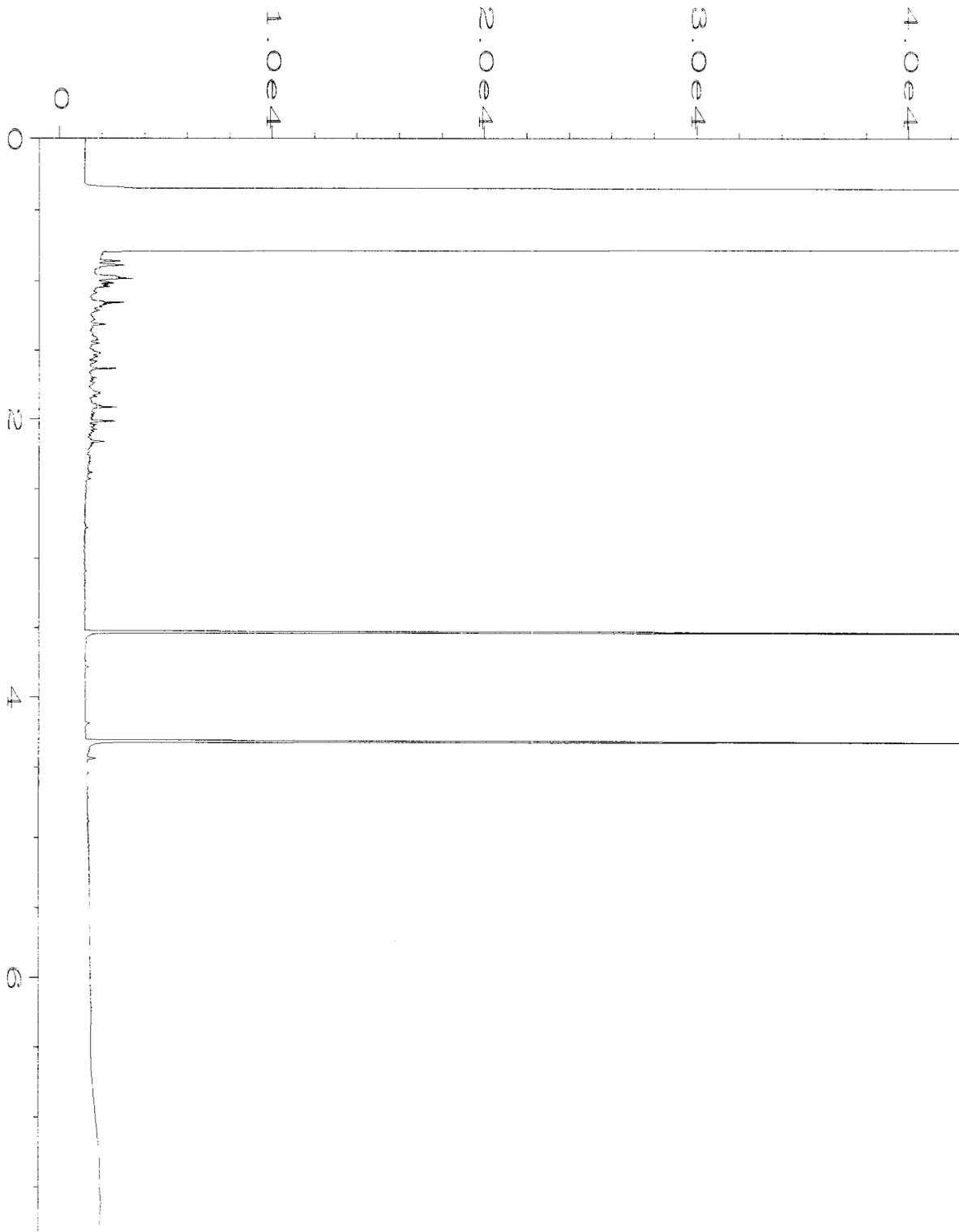
Data File Name	: C:\HPCHEM\4\DATA\06-13-19\042F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 42
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 906232-02	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 07:59 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:53 AM		



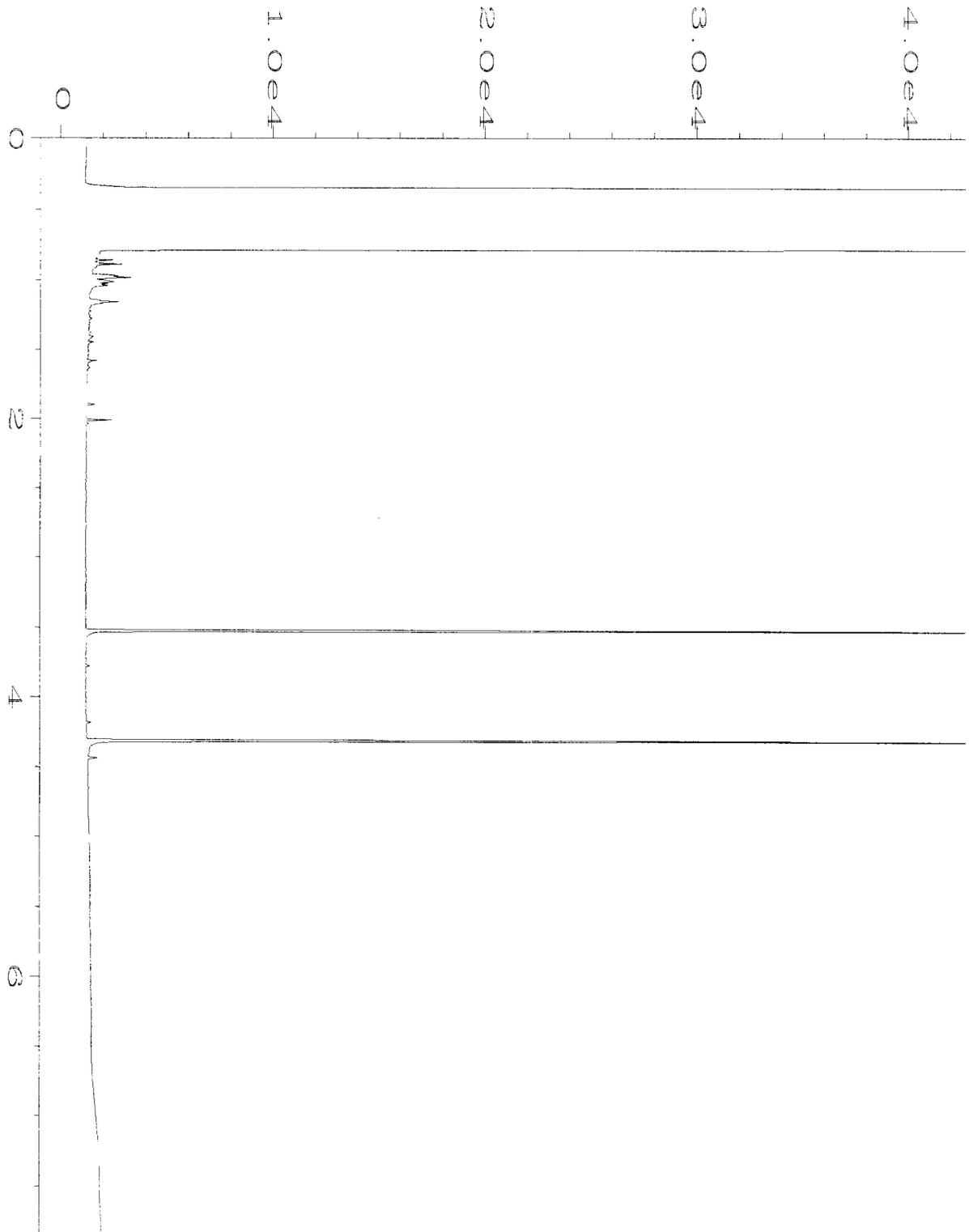
Data File Name	: C:\HPCHEM\4\DATA\06-13-19\043F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 43
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 906232-03	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 08:11 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:53 AM		



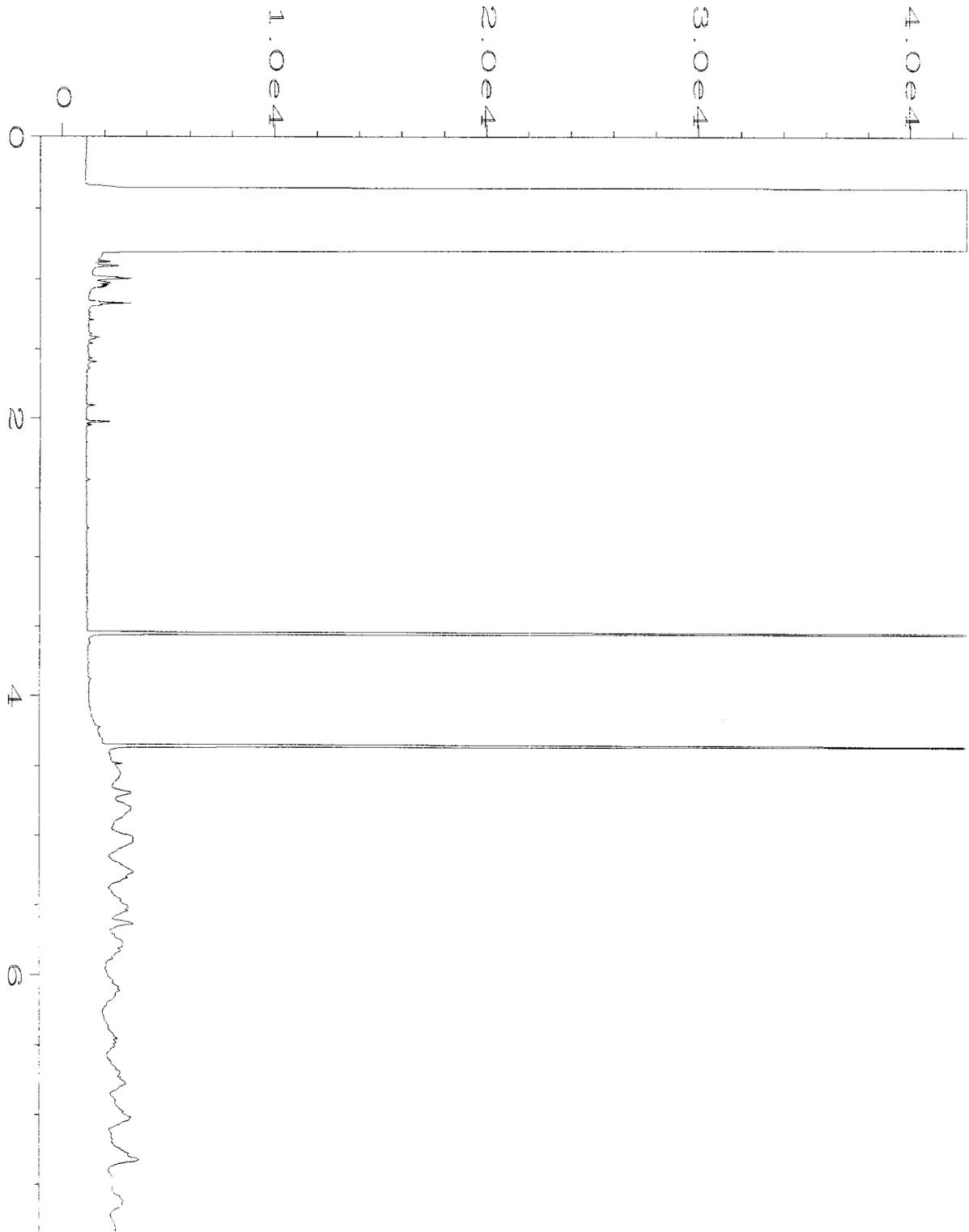
Data File Name	: C:\HPCHEM\4\DATA\06-13-19\044F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 44
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 906232-05	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 08:24 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:53 AM		



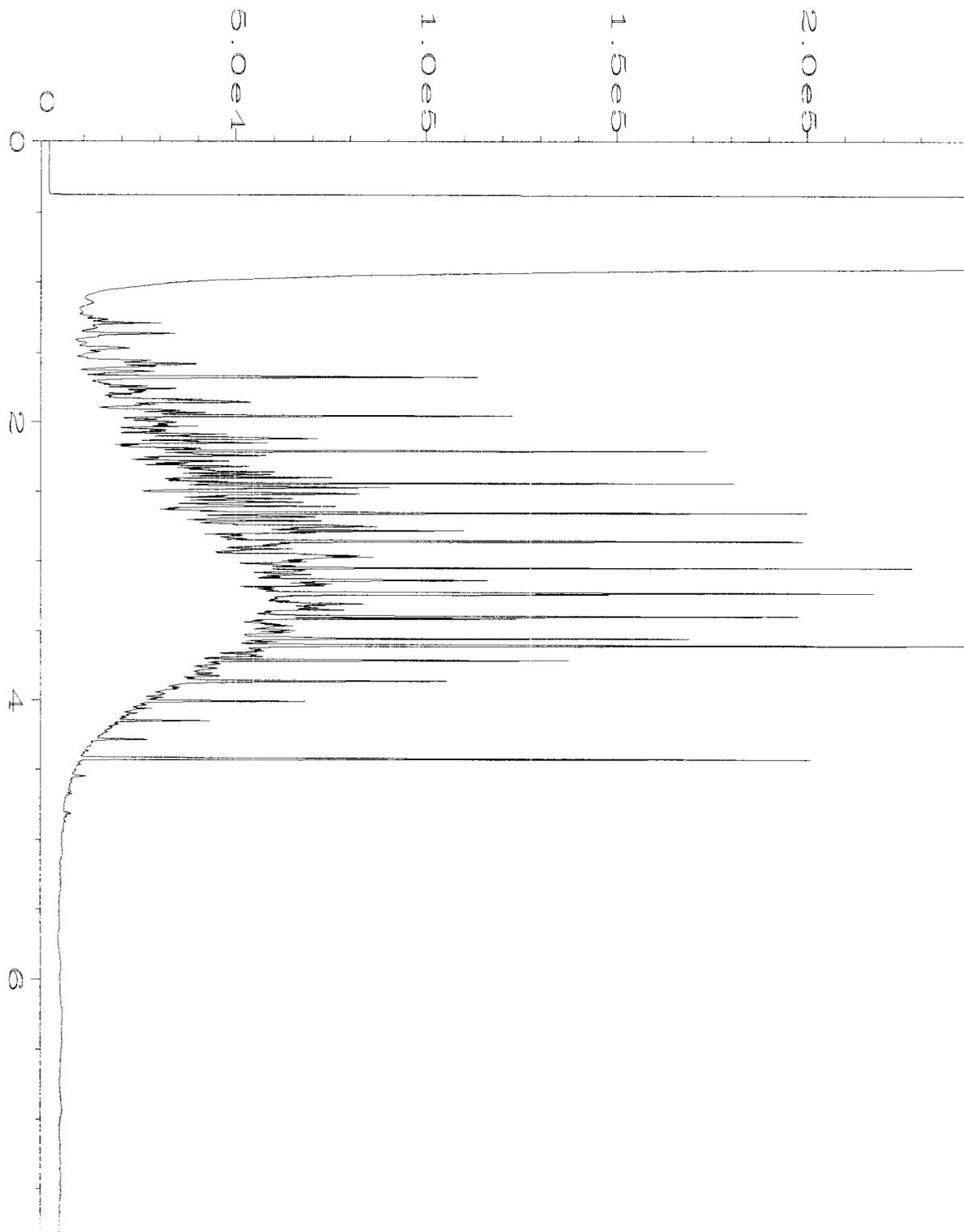
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Operator	: TL	Vial Number	: 45
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 906232-07	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 08:36 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:53 AM		



Data File Name	: C:\HPCHEM\4\DATA\06-13-19\046F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 46
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 906232-08	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 13 Jun 19 08:49 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:53 AM		



Data File Name	: C:\HPCHEM\4\DATA\06-13-19\023F0801.D	Page Number	: 1
Operator	: TL	Vial Number	: 23
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 09-1393 mb	Sequence Line	: 8
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 13 Jun 19 02:27 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:51 AM		



Data File Name	: C:\HPCHEM\4\DATA\06-13-19\005F0901.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 57-78B	Sequence Line	: 9
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 13 Jun 19 03:30 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	14 Jun 19 07:51 AM		

906232

SAMPLE CHAIN OF CUSTODY

ME 06-12-19

VS2/B03

Report To Andrew Yoshitski  
 Company Aspect Consulting  
 Address 710 2nd Ave. Ste 550  
 City, State, ZIP Seattle, WA, 98104  
 Phone (206) 413-5411 Email ayoshitski@aspectconsulting.com

SAMPLERS (signature) [Signature]  
 PROJECT NAME Alaska Code  
 REMARKS AP  
 PO # 180357  
 INVOICE TO AP

TURNAROUND TIME  
 Standard Turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Dispose after 30 days  
 Archive Samples  
 Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8260	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	LCOCs by 8266	Pb by 6010	Mn, Cr, Fe, Cd, Ni, Cu, Zn, Pb, Hg, Se, As, Mo, V, Sb, Bi, Sn, Tl, U, Th, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr	
MW-15-75	01A-E	6/12/19	0914	soil	5	X	X	X	X			X				X-per AY
MW-15-10.5	02		0920			X	X	X				X				6/13/19 ME
MW-15-13	03		0926			X	X	X				X				
MW-15-17.5	04		0937													
MW-15-25	05		0956			X	X	X	X							
B-07-6	06		1331													
B-07-8	07		1337			X	X	X				X				
B-07-12.5	08		1349			X	X	X				X				
B-07-22.5	09		1419													
B-07-25	10		1425													

SIGNATURE  
 Relinquished by: [Signature]  
 Received by: [Signature]  
 Relinquished by: [Signature]  
 Received by: \_\_\_\_\_

PRINT NAME  
 David Urick  
 HONG HONG

COMPANY  
 Aspect Consulting  
 FBI

DATE  
 6/12/19

TIME  
 1203

Samples received at 3 o'clock

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

July 3, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on June 14, 2019 from the Aloha Café 180357, F&BI 906279 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0703R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 14, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Café 180357, F&BI 906279 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
906279 -01	MW-17-6
906279 -02	MW-17-8.5
906279 -03	MW-17-10
906279 -04	MW-17-20
906279 -05	MW-17-25
906279 -06	MW-16-6.5
906279 -07	MW-16-7.5
906279 -08	MW-16-12.5
906279 -09	MW-17-17.5
906279 -10	MW-17-25

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/03/19

Date Received: 06/14/19

Project: Aloha Cafe 180357, F&BI 906279

Date Extracted: 06/28/19

Date Analyzed: 06/28/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 58-139)
MW-17-8.5 906279-02	<5	81
MW-16-7.5 906279-07	<5	80
Method Blank 09-1521 MB	<5	78

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/03/19

Date Received: 06/14/19

Project: Aloha Cafe 180357, F&BI 906279

Date Extracted: 06/28/19

Date Analyzed: 06/28/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
MW-17-8.5 906279-02	<50	<250	99
MW-16-7.5 906279-07	<50	<250	102
Method Blank 09-1552 MB	<50	<250	97

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/03/19

Date Received: 06/14/19

Project: Aloha Cafe 180357, F&BI 906279

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TPH AS GASOLINE  
USING METHOD NWTPH-Gx**

Laboratory Code: 906590-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	110	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/03/19

Date Received: 06/14/19

Project: Aloha Cafe 180357, F&BI 906279

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 906519-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	8,400	72	92	63-146	24 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	112	79-144

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

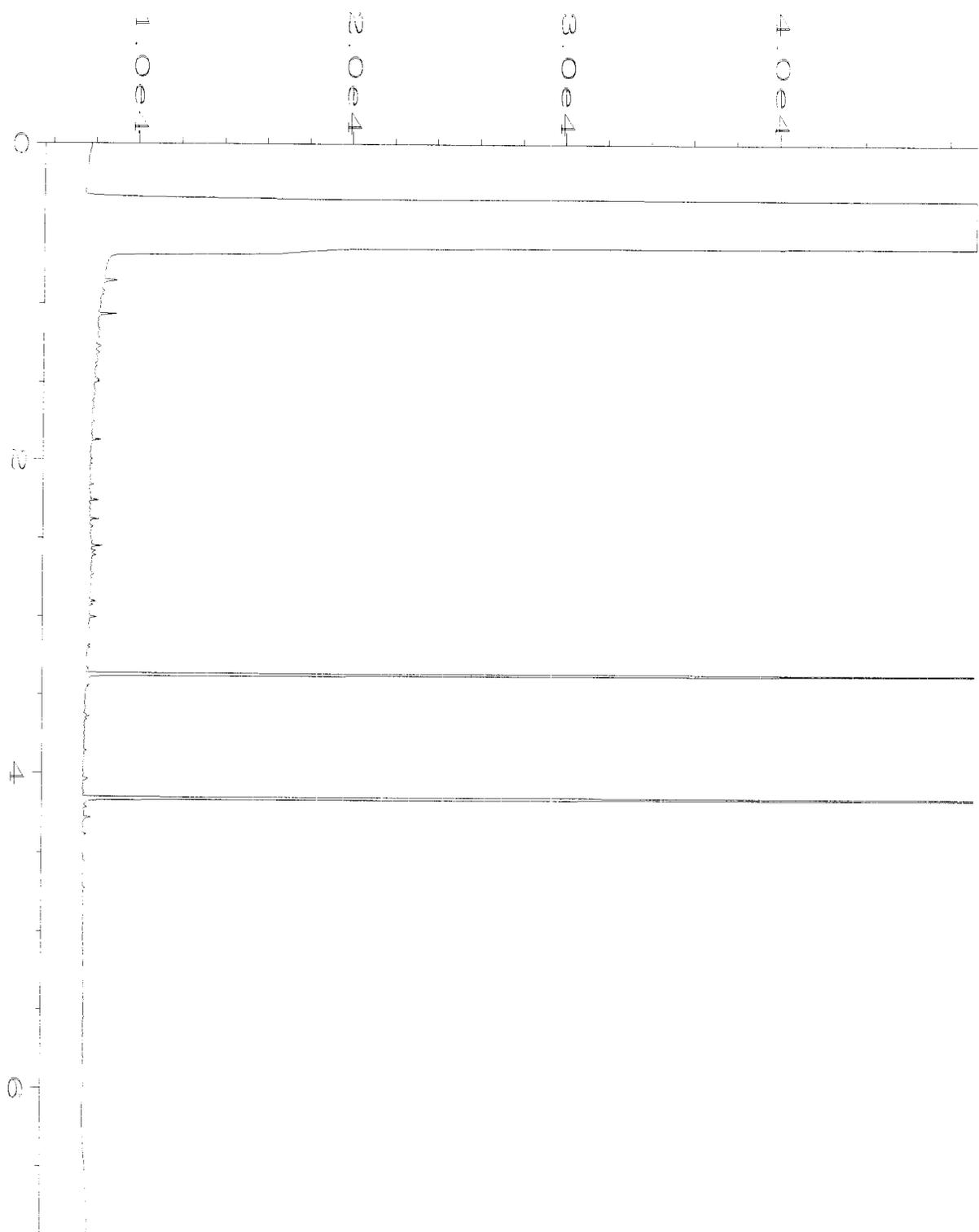
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

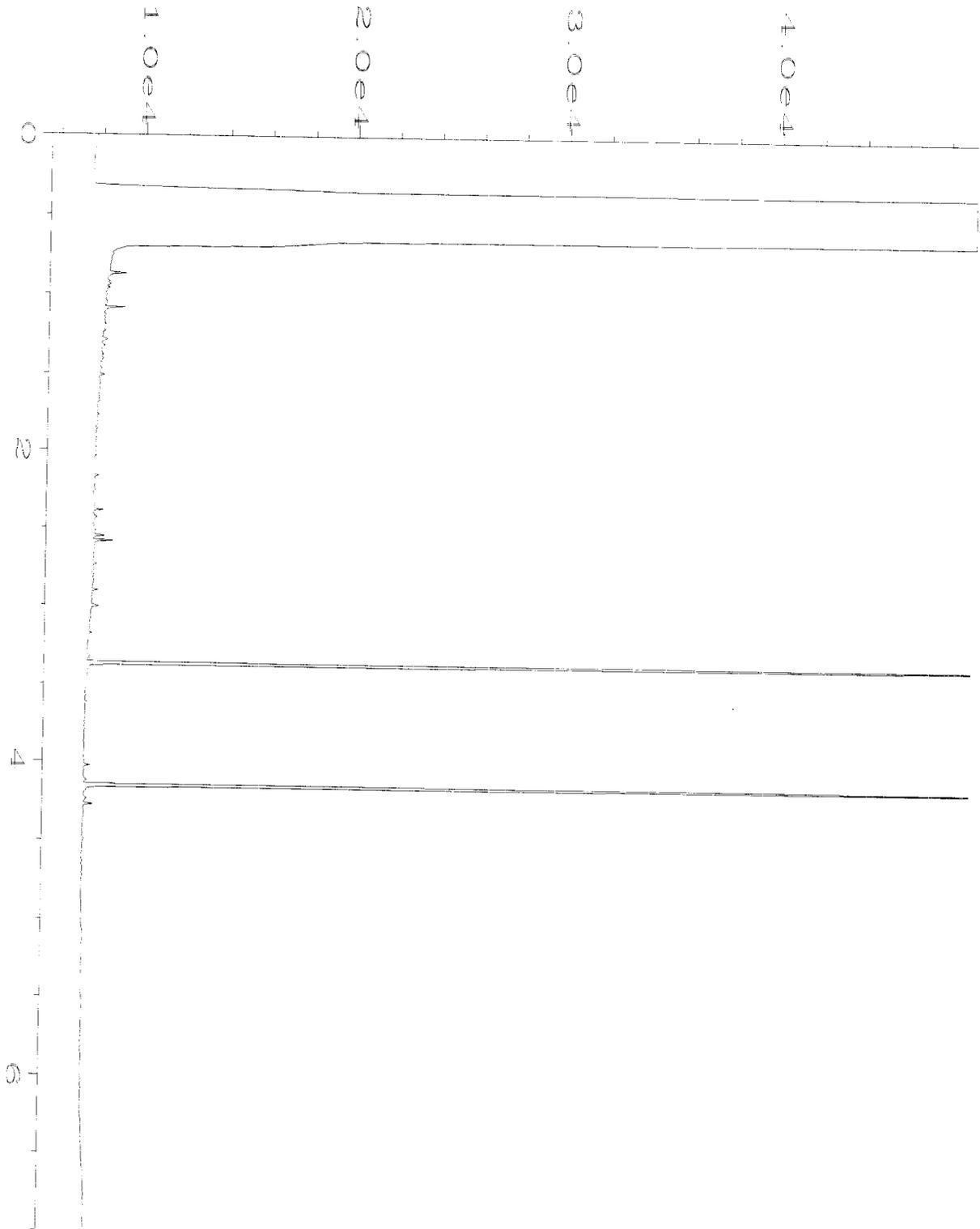
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

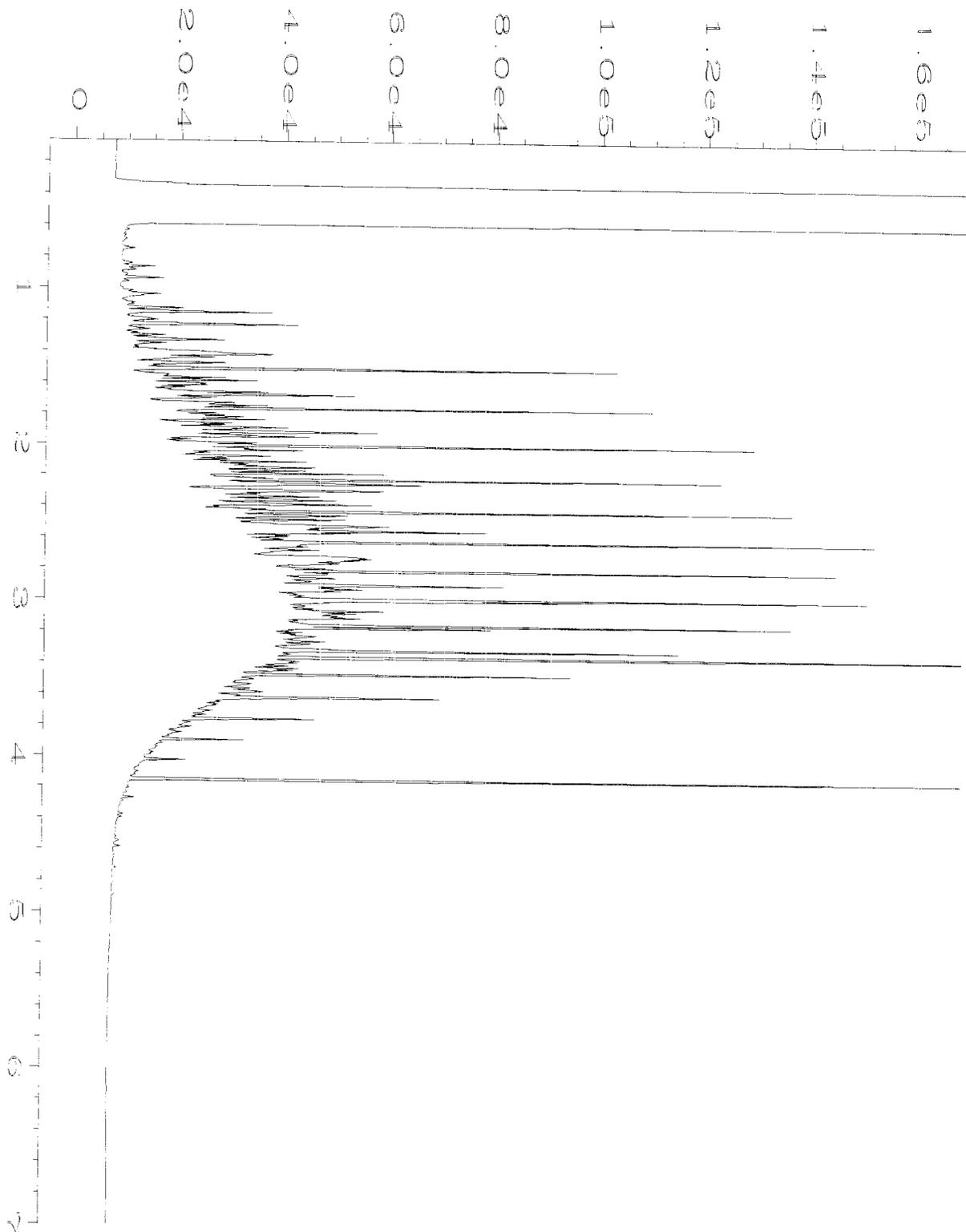
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



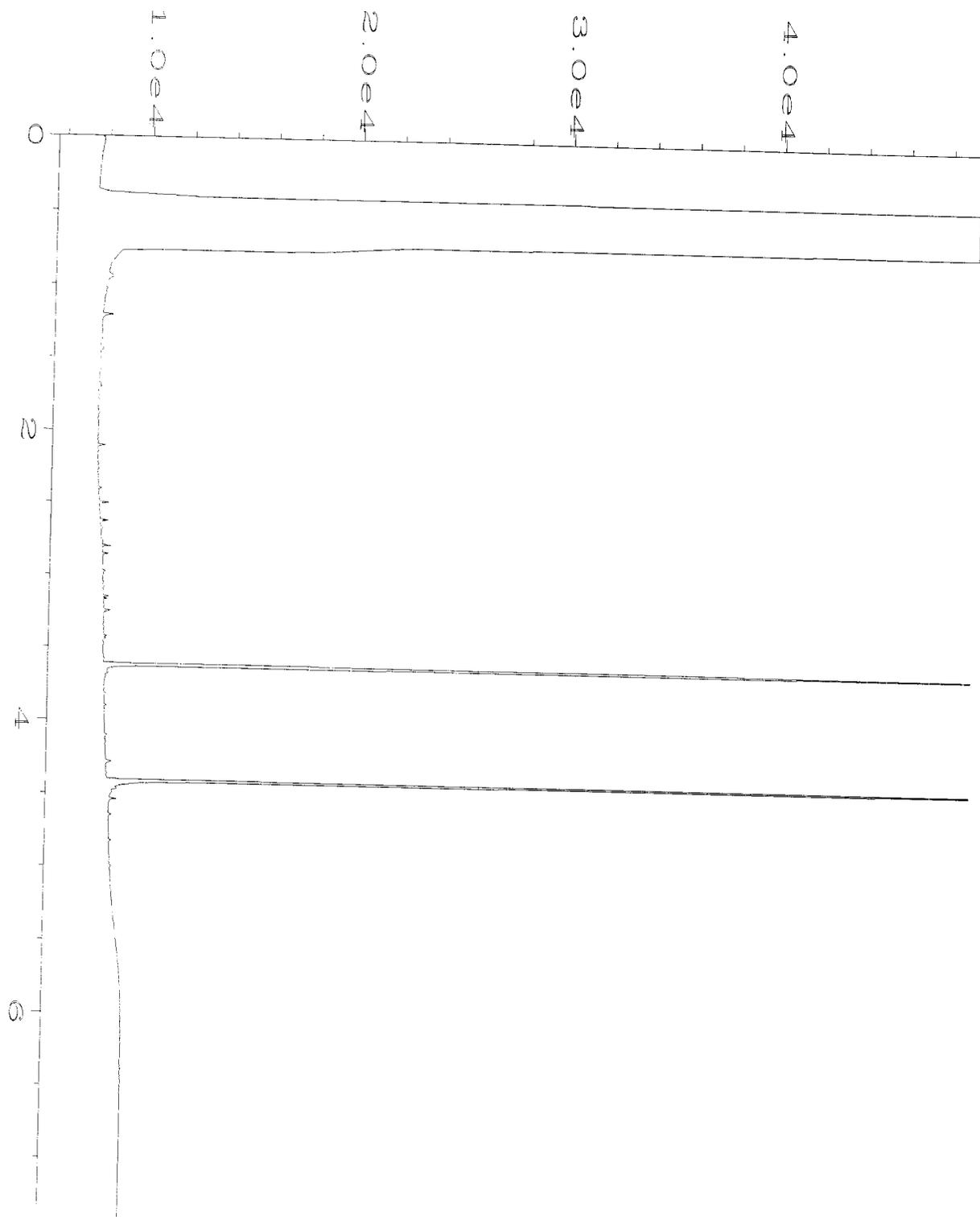
Data File Name	: C:\HPCHEM\6\DATA\06-28-19\025F1301.D	Page Number	: 1
Operator	: TL	Vial Number	: 25
Instrument	: GC6	Injection Number	: 1
Sample Name	: 906279-02	Sequence Line	: 13
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 28 Jun 19 04:18 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	01 Jul 19 10:31 AM		



Data File Name	: C:\HPCHEM\6\DATA\06-28-19\026F1301.D	Page Number	: 1
Operator	: TL	Vial Number	: 26
Instrument	: GC6	Injection Number	: 1
Sample Name	: 906279-07	Sequence Line	: 13
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 28 Jun 19 04:27 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	01 Jul 19 10:31 AM		



Data File Name	: C:\HPCHEM\6\DATA\06-28-19\093F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 93
Instrument	: GC6	Injection Number	: 1
Sample Name	: 500 Dx 57-78E	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 28 Jun 19 05:00 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	01 Jul 19 10:32 AM		



Data File Name	: C:\HPCHEM\1\DATA\06-28-19\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC1	Injection Number	: 1
Sample Name	: 09-1552 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 28 Jun 19 09:33 AM	Analysis Method	: DEFAULT.MTH
Report Created on:	01 Jul 19 10:41 AM		

906279

SAMPLE CHAIN OF CUSTODY ME 06-14-19

Page # 1 of 153

Report To: Andrew Yankofski  
 Company: Aspet Consulting LLC  
 Address: 710 3rd Ave, Ste. 550  
 City, State, ZIP: Seattle, WA 98104  
 Phone: (206) 413-5446 Email: ayankofski@aspetconsulting.com

SAMPLERS (signature) <u>Dave D'Amico</u>	PROJECT NAME <u>Alpha Fele</u>	PO # <u>180357</u>
REMARKS <u>Alpha Fele</u>	INVOICE TO <u>AP</u>	

TURNAROUND TIME  
 Standard Turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL  
 Dispose after 30 days  
 Archive Samples  
 Other \_\_\_\_\_

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Hold Pending	Gas Target VOCs		
MUD-17-6	01A-E	6/14/19	0644	Soil	5								X			X-pc AY
MUD-17-8S	02-T		0655													6/21/19 ME
MUD-17-10	03		0658				X	X								Extract & Hold
MUD-17-20	04		0715													(X)-pc AG
MUD-17-25	05		0726													6/29/19 m
MUD-16-6.5	06	6/14/19	0852	Soil	5											
MUD-16-7.5	07		0858				(X)	(X)								
MUD-16-12.5	08		0909				X	X								
MUD-17-17.5	09		0920													Samples received at 09:00
MUD-17-25	10		0937													

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8382

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Relinquished by: <u>Dave D'Amico</u>		<u>Dave D'Amico</u>		<u>Aspet Consulting</u>		<u>6/14/19</u>	<u>09:00</u>
Received by: <u>[Signature]</u>		<u>JD VA</u>		<u>FR BT</u>		<u>6-14-19</u>	<u>12:21</u>
Relinquished by:							
Received by:							

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

July 24, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on July 17, 2019 from the Aloha Cafe 180357, F&BI 907276 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Data Aspect, Adam Griffin  
ASP0724R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 17, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 907276 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
907276 -01	MW-18-6.5
907276 -02	MW-18-8
907276 -03	MW-18-10
907276 -04	MW-18-15
907276 -05	MW-18-20
907276 -06	B-08-6.0
907276 -07	B-08-8.5
907276 -08	B-08-13.5
907276 -09	B-08-18.5
907276 -10	B-08-23.5
907276 -11	MW-19-6.0
907276 -12	MW-19-8.5
907276 -13	MW-19-13.5
907276 -14	MW-19-18.5
907276 -15	MW-19-23.5
907276 -16	Dup-2
907276 -17	Trip Blank
907276 -18	FD1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

Date Extracted: 07/22/19

Date Analyzed: 07/23/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
MW-18-10 907276-03	<0.02	<0.02	<0.02	<0.06	<5	93
B-08-13.5 907276-08	<0.02	<0.02	<0.02	<0.06	<5	94
MW-19-8.5 907276-12	<0.02	<0.02	<0.02	<0.06	<5	93
Dup-2 907276-16	<0.02	<0.02	<0.02	<0.06	<5	95
Method Blank 09-1723 MB	<0.02	<0.02	<0.02	<0.06	<5	74

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

Date Extracted: 07/18/19

Date Analyzed: 07/18/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 52-124)
Trip Blank 907276-17	<1	<1	<1	<3	<100	100
Method Blank 09-1712 MB	<1	<1	<1	<3	<100	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

Date Extracted: 07/18/19

Date Analyzed: 07/18/19

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
MW-18-10 907276-03	<50	<250	94
B-08-13.5 907276-08	<50	<250	92
MW-19-8.5 907276-12	<50	<250	92
Dup-2 907276-16	<50	<250	93
Method Blank 09-1731 MB	<50	<250	98

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-18-10	Client:	Aspect Consulting, LLC
Date Received:	07/17/19	Project:	Aloha Cafe 180357, F&BI 907276
Date Extracted:	07/18/19	Lab ID:	907276-03
Date Analyzed:	07/18/19	Data File:	071815.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	93	107
Toluene-d8	100	87	110
4-Bromofluorobenzene	97	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B-08-13.5	Client:	Aspect Consulting, LLC
Date Received:	07/17/19	Project:	Aloha Cafe 180357, F&BI 907276
Date Extracted:	07/18/19	Lab ID:	907276-08
Date Analyzed:	07/18/19	Data File:	071816.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	93	107
Toluene-d8	97	87	110
4-Bromofluorobenzene	96	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-19-8.5	Client:	Aspect Consulting, LLC
Date Received:	07/17/19	Project:	Aloha Cafe 180357, F&BI 907276
Date Extracted:	07/18/19	Lab ID:	907276-12
Date Analyzed:	07/18/19	Data File:	071817.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	93	107
Toluene-d8	97	87	110
4-Bromofluorobenzene	98	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Dup-2	Client:	Aspect Consulting, LLC
Date Received:	07/17/19	Project:	Aloha Cafe 180357, F&BI 907276
Date Extracted:	07/18/19	Lab ID:	907276-16
Date Analyzed:	07/18/19	Data File:	071818.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	93	107
Toluene-d8	97	87	110
4-Bromofluorobenzene	96	85	112

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 907276
Date Extracted:	07/18/19	Lab ID:	09-1684 mb
Date Analyzed:	07/18/19	Data File:	071814.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	145
Toluene-d8	98	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 907338-06 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	15	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	109	69-120
Toluene	mg/kg (ppm)	0.5	114	70-117
Ethylbenzene	mg/kg (ppm)	0.5	113	65-123
Xylenes	mg/kg (ppm)	1.5	114	66-120
Gasoline	mg/kg (ppm)	20	90	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 907267-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	2.4	1.6	38 a
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	100	65-118
Toluene	ug/L (ppb)	50	106	72-122
Ethylbenzene	ug/L (ppb)	50	109	73-126
Xylenes	ug/L (ppb)	150	108	74-118
Gasoline	ug/L (ppb)	1,000	105	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 907241-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	88	88	73-135	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	100	74-139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/24/19

Date Received: 07/17/19

Project: Aloha Cafe 180357, F&BI 907276

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 907276-12 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	49	51	10-91	4
Chloroethane	mg/kg (ppm)	2.5	<0.5	65	68	10-101	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	67	71	22-107	6
Methylene chloride	mg/kg (ppm)	2.5	<0.5	68	71	14-128	4
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	71	76	13-112	7
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	74	79	23-115	7
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	75	80	25-120	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	80	82	22-124	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	78	82	27-112	5
Trichloroethene	mg/kg (ppm)	2.5	<0.02	80	81	30-112	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	82	83	25-114	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	95	42-107
Chloroethane	mg/kg (ppm)	2.5	92	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	91	65-110
Methylene chloride	mg/kg (ppm)	2.5	104	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	101	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	99	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	105	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	96	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	104	72-116
Trichloroethene	mg/kg (ppm)	2.5	95	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	102	73-111

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

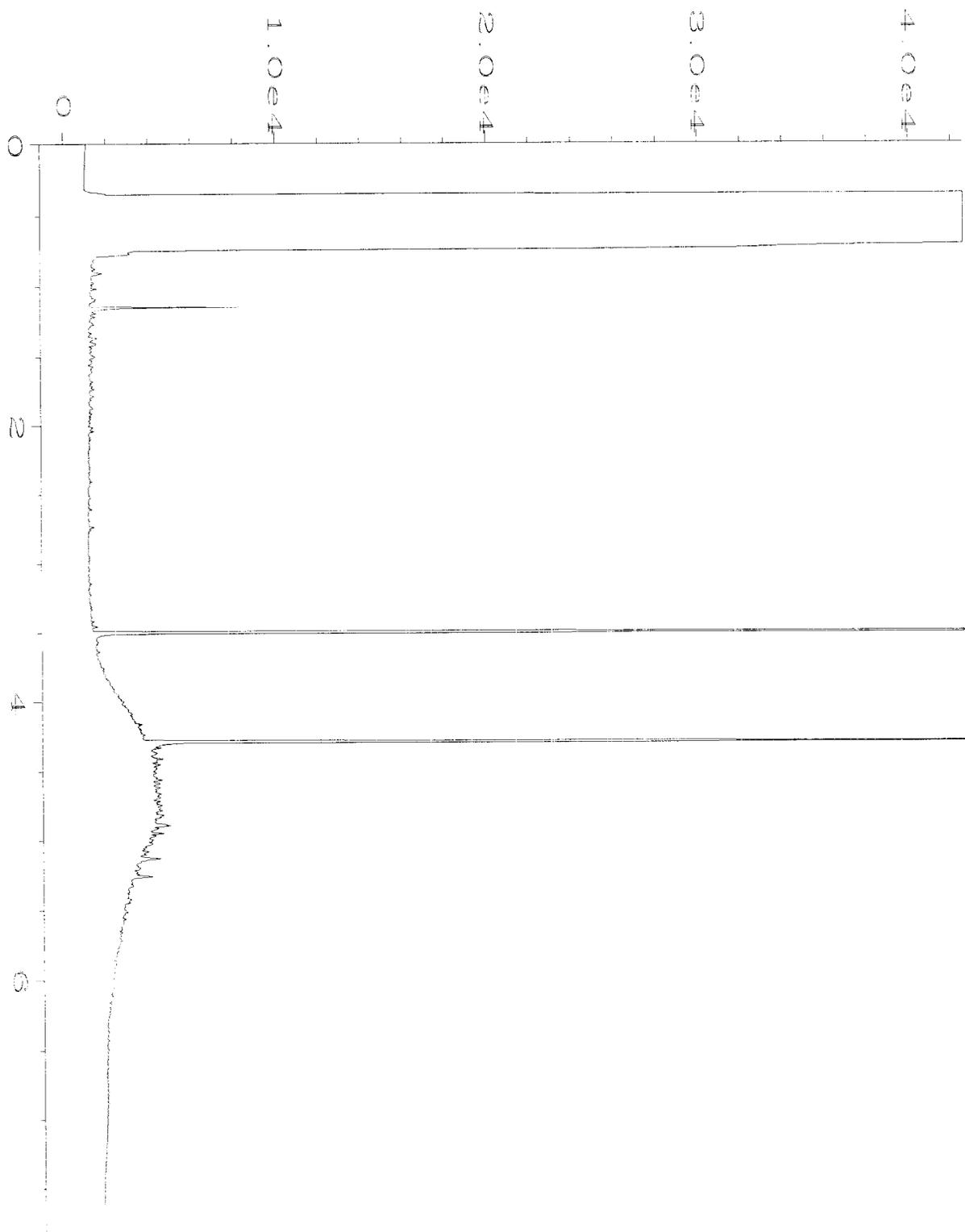
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

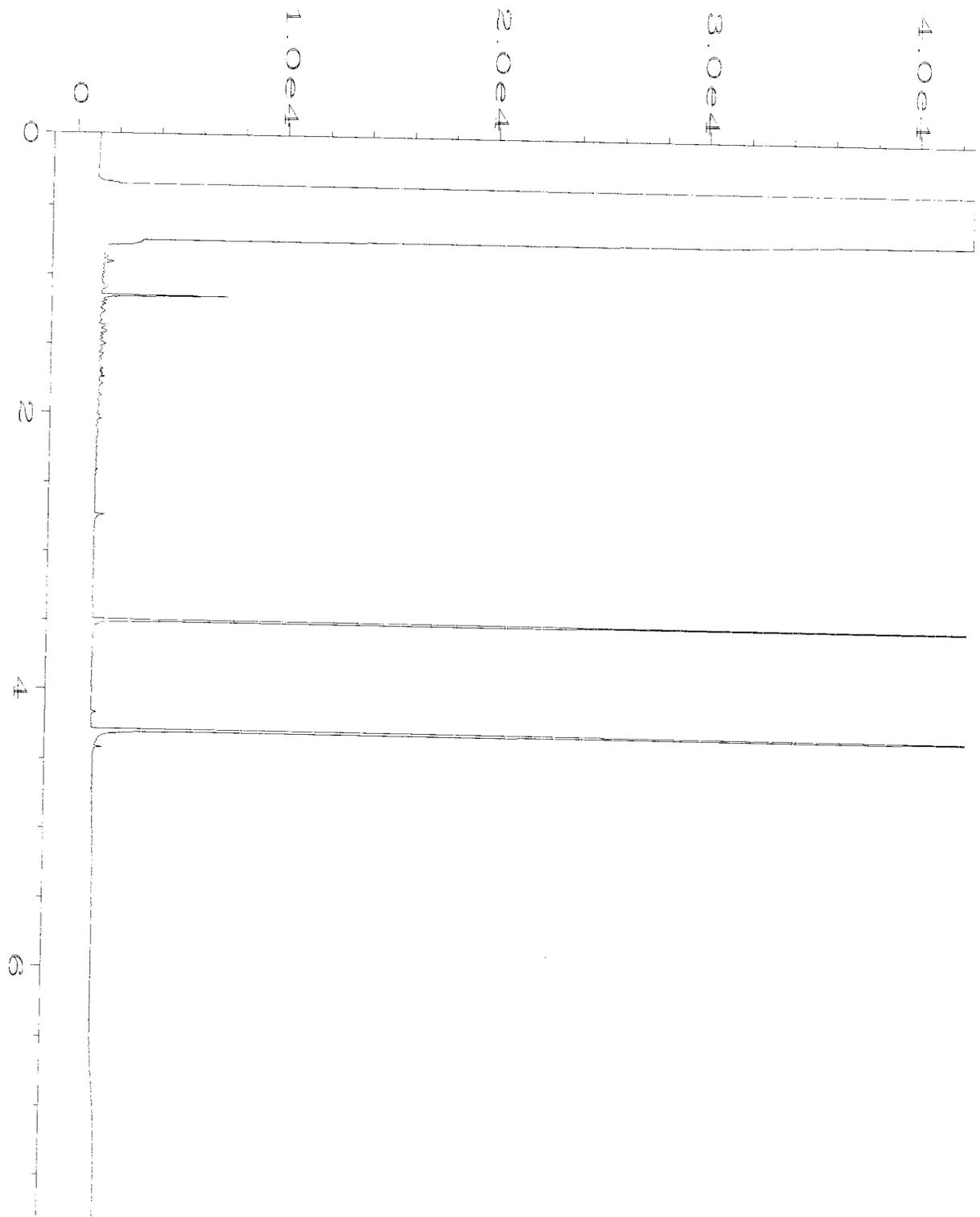
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

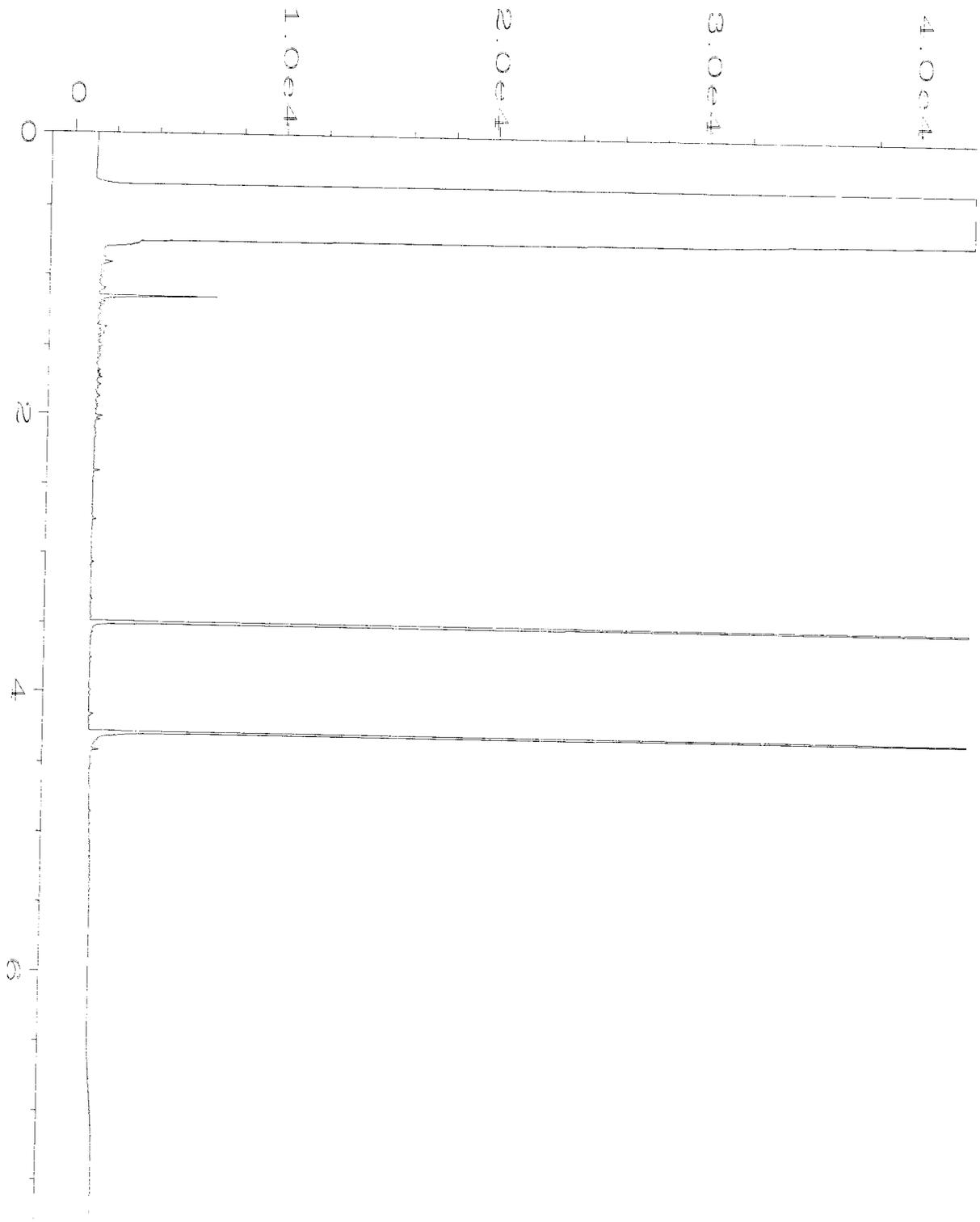
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



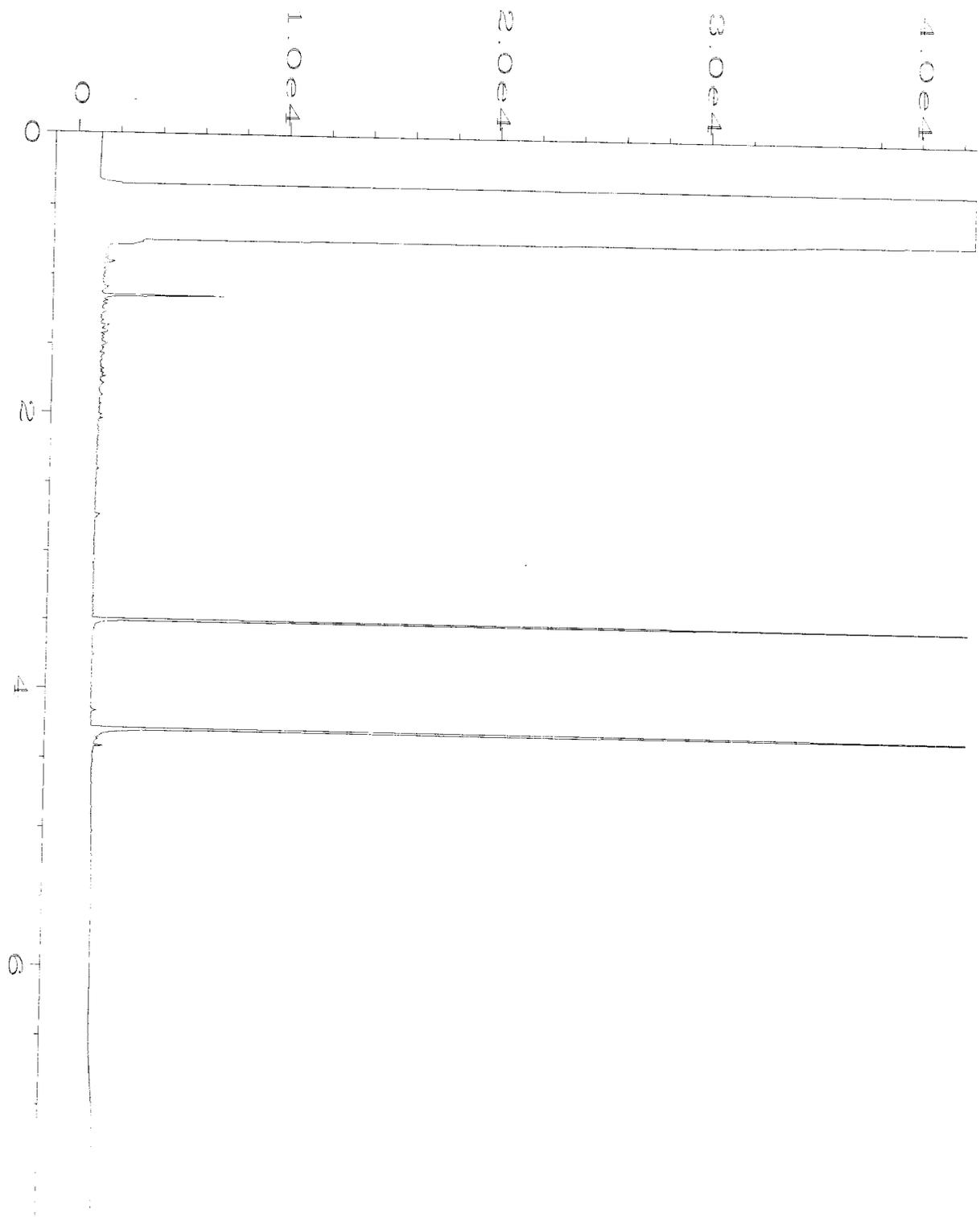
Data File Name	: C:\HPCHEM\4\DATA\07-18-19\024F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 24
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 907276-03	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Jul 19 06:25 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Jul 19 09:16 AM		



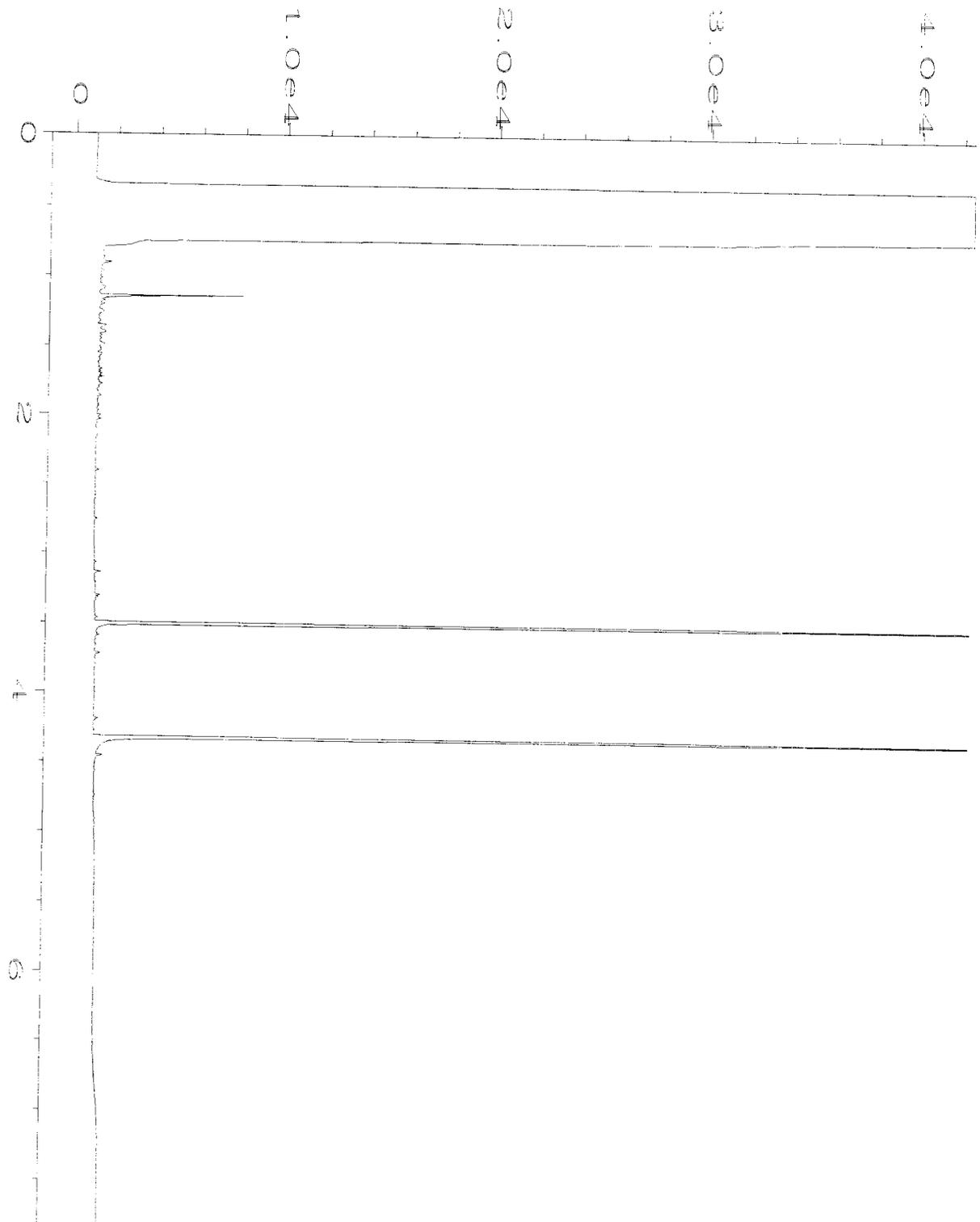
Data File Name	: C:\HPCHEM\4\DATA\07-18-19\025F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 25
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 907276-08	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Jul 19 06:37 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Jul 19 09:16 AM		



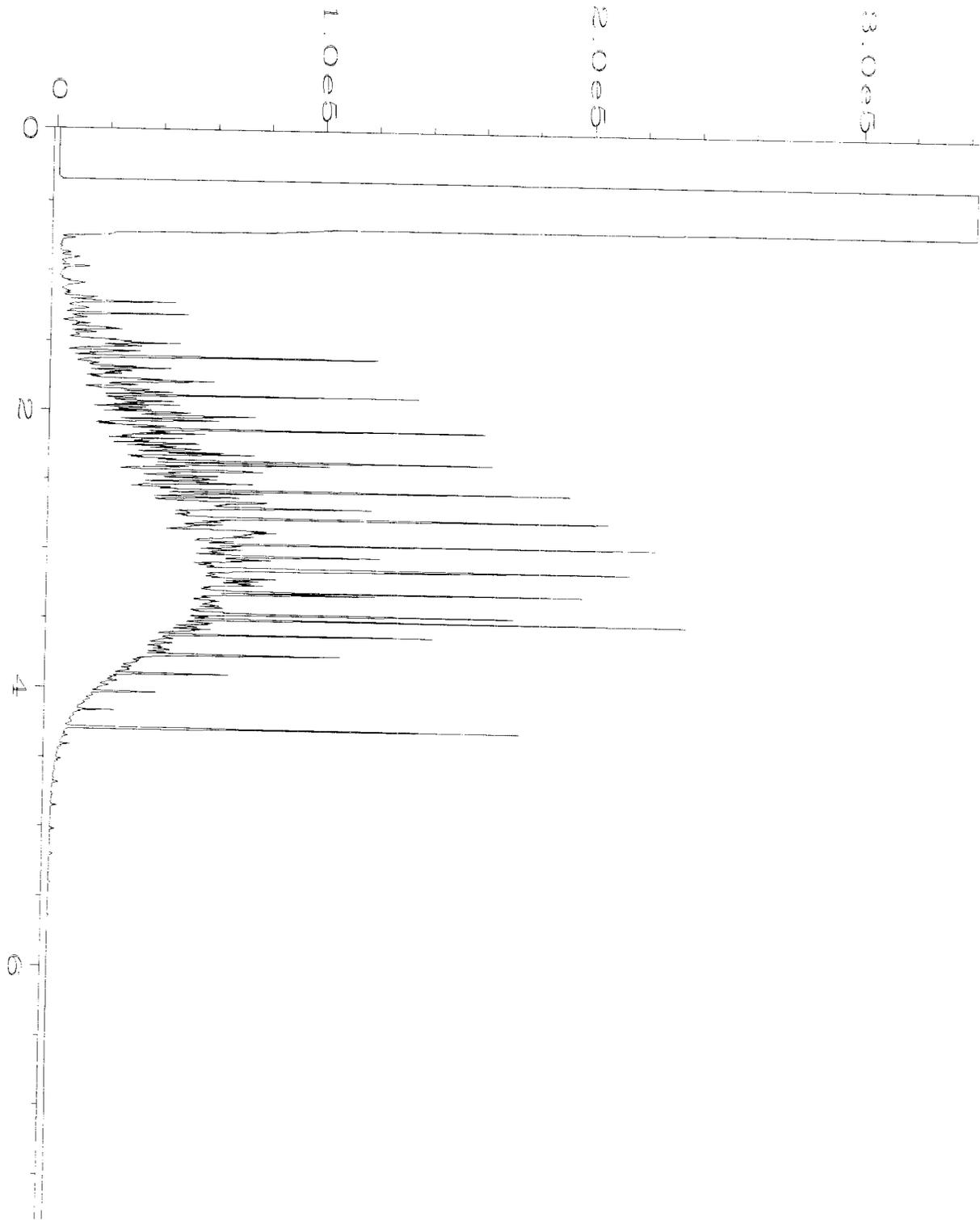
Data File Name	: C:\HPCHEM\4\DATA\07-18-19\026F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 26
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 907276-12	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Jul 19 06:49 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Jul 19 09:16 AM		



Data File Name	: C:\HPCHEM\4\DATA\07-18-19\027F0701.D	Page Number	: 1
Operator	: TL	Vial Number	: 27
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 907276-16	Sequence Line	: 7
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Jul 19 07:01 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Jul 19 09:16 AM		



Data File Name	: C:\HPCHEM\4\DATA\07-18-19\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 09-1731 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Jul 19 12:00 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Jul 19 09:11 AM		



Data File Name	: C:\HPCHEM\4\DATA\07-18-19\005F1001.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 57-78B	Sequence Line	: 10
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 18 Jul 19 09:02 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	19 Jul 19 09:17 AM		

987726

SAMPLE CHAIN OF CUSTODY ME 07-17-19

Page # 805 of 1842

Report To Alan ~~Winters~~ Johnson

Company Aspect Consulting

Address 710 2nd Ave Ste 550

City, State, ZIP Seattle, WA 98104

Phone (206) 413-5411 Email ajohnson@aspectconsulting.com

SAMPLERS (signature) <u>[Signature]</u>	PROJECT NAME <u>Alona Cole</u>	PO # <u>10357</u>
REMARKS <u>AP</u>	INVOICE TO <u>AP</u>	

TURNAROUND TIME

Standard Turnaround

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other \_\_\_\_\_

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes	
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM		
MW-18-6.5	01A-E	7/15/19	1053	S	5									X-pr AY
MW-18-8	02		1102		1									7/17/19
MW-18-10	03		1108		1	X	X	X	X					ME
MW-18-15	04		1121		1									
MW-18-20	05	X	1144	Soil	5									
B-08-6.0	06	7/16/19	1010		1									
B-08-8.5	07		1015		1									
B-08-13.5	08		1030		1	X	X	X	X					
B-08-18.5	09		1040		1									
B-08-23.5	10		1050		1									

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	Daniel Boreck	Aspect Consulting	7/17/19	0940
<u>[Signature]</u>	Nhan Phan	F&B	7/17/19	0940
Received by: _____				
Relinquished by: _____				
Received by: _____				

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

Samples received at 4:00

**SAMPLE CHAIN OF CUSTODY**

987776  
 ME 07-017-19  
 154 / B05  
 B 1/7

Report To: Andrew ~~Winkler~~ Alden Co. Inc.

Company: Aspect Consulting

City, State, ZIP: Seattle WA

Phone: 206-413-5411 Email: ~~awinkler@aspectconsulting.com~~

SAMPLERS (signature) David U. & Daniele 1/3  
 PROJECT NAME: Alaska Cafe  
 PO #: 180357

REMARKS: \_\_\_\_\_  
 INVOICE TO: \_\_\_\_\_

Page # \_\_\_\_\_ of \_\_\_\_\_  
 TURNOURUND TIME  
 Standard Turnaround  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Dispose after 30 days  
 Archive Samples  
 Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes		
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM			
MU-19-6.0	11 A-E	7/16/19	1320	Soil	5										
MU-19-8.5	12		1330			X	X	X	X						USM 14/14/19
MU-19-13.5	13		1340												USM 14/14/19
MU-19-18.5	14		1350												VOL 14/14/19
MU-19-23.5	15		1410												12-20
DUP-2	16					X	X	X	X						
TIP Blank	17 A-B			Water	4	X	X	X	X						
FD1	18 A-E	7/15/19													add M 14/19

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>[Signature]</i>	David U. & Daniele	Aspect Consulting	7/17/19	0940
<i>[Signature]</i>	Nhan Phan	Aspect Consulting	7/17/19	0940
Received by: _____				
Received by: _____				

Samples received at FC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 28, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on July 30, 2019 from the Aloha Cafe 180357, F&BI 907561 project. There are 7 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0828R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 30, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 907561 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
907561 -01	GP-01-072519
907561 -02	GP-02-072519
907561 -03	GP-03-072519
907561 -04	Dup-1-072519
907561 -05	GP-04-072519
907561 -06	SVS-02-072519
907561 -07	SVS-01-072519
907561 -08	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357, F&BI 907561
Date Collected:	07/25/19	Lab ID:	907561-03 1/37
Date Analyzed:	08/14/19	Data File:	081328.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	115	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	8,700
APH EC9-12 aliphatics	9,600
APH EC9-10 aromatics	<920

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Dup-1-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357, F&BI 907561
Date Collected:	07/25/19	Lab ID:	907561-04 1/39
Date Analyzed:	08/14/19	Data File:	081329.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	106	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	9,100
APH EC9-12 aliphatics	11,000
APH EC9-10 aromatics	<970

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SVS-02-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357, F&BI 907561
Date Collected:	07/25/19	Lab ID:	907561-06 1/7.7
Date Analyzed:	08/14/19	Data File:	081327.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	81	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	1,700
APH EC9-12 aliphatics	860
APH EC9-10 aromatics	<190

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 907561
Date Collected:	Not Applicable	Lab ID:	09-1864 mb
Date Analyzed:	08/13/19	Data File:	081310.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	103	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<46
APH EC9-12 aliphatics	<35
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/28/19

Date Received: 07/30/19

Project: Aloha Cafe 180357, F&BI 907561

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 908226-03 1/3.3 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	390	440	12
APH EC9-12 aliphatics	ug/m3	350	340	3
APH EC9-10 aromatics	ug/m3	<82	<82	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	45	97	70-130
APH EC9-12 aliphatics	ug/m3	45	123	70-130
APH EC9-10 aromatics	ug/m3	45	91	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

407561

SAMPLE CHAIN OF CUSTODY

ME 07/30/19

Page # of

Report To Andrew Yeon/ASK

Company Aspect Consulting

Address 710 2nd Ave Ste 550 Seattle WA

City, State, ZIP

Phone 316.617.0444 Email yeon@ask.com

SAMPLERS (signature)

PROJECT NAME: Alpine Cafe

REPORTING LEVEL:  Indoor Air  Deep Soil Gas  Sub Slab/Soil Gas  SVE/Grab

PO #: 180357

INVOICE TO

ANALYSIS REQUESTED

TO-15 Full Scan

TO-15 BTEXN

TO-15 cVOCs

EPATO-15 BTEX, MTBE, EDB, EDC, MA, APH.

Notes

TURNAROUND TIME

Standard  RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days  Archive Samples  Other

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	Notes
GR-01-072519	61	3664	242	7/25/19	30	1010	5	1016			X	All sampled for BTEX, MTBE, EDB, EDC,
GR-02-072519	02	3540	255	7/25/19	30	1102	5	1107			X	Naphthalene, & MA APH
GR-03-072519	03	3667	257	7/25/19	30	1135	5	1141			X	
Dup-1-072519	04	2302	224	7/25/19	30		5				X	Collected within the time of the other sample
GR-04-072519	05	3287	204	7/25/19	30	1222	5	1227			X	
SVS-02-072519	06	2297	244	7/25/19	30	1330	5	1335			X	
SVS-D1-072519	07	3387	259	7/25/19	30	1357	5	1403			X	
Trip Blank	08	2432	-	-	-	-	-	-			X	Samples received at 25 °C

Friedman & Bruvo, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<i>[Signature]</i>	Daniel Brack	Aspect Consulting	7/30/19	1536
<i>[Signature]</i>	DAVID WILKINS	ASK	7/30/19	3:26
<i>[Signature]</i>	Gene Jones	ASK	7/30/19	1536

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 9, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on July 30, 2019 from the Aloha Cafe 180357, F&BI 907561 project. There are 22 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0809R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 30, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 907561 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
907561 -01	GP-01-072519
907561 -02	GP-02-072519
907561 -03	GP-03-072519
907561 -04	Dup-1-072519
907561 -05	GP-04-072519
907561 -06	SVS-02-072519
907561 -07	SVS-01-072519
907561 -08	Trip Blank

The APH EC5-8 aliphatics concentrations in samples GP-03-072519, Dup-1-072519, and SVS-02-072519 exceeded the calibration range of the instrument. The data were flagged accordingly.

APH EC9-12 aliphatics was detected in the TO-15 method blank at a level greater than one tenth the concentration detected in sample Dup-1-072519 and SVS-02-072519. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-01-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-01 1/3.2
Date Analyzed:	08/02/19	Data File:	080214.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	410
APH EC9-12 aliphatics	2,200
APH EC9-10 aromatics	<80

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-02-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-02 1/3.1
Date Analyzed:	08/03/19	Data File:	080216.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	350
APH EC9-12 aliphatics	2,600
APH EC9-10 aromatics	<77

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-03-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-03 1/7.5
Date Analyzed:	08/03/19	Data File:	080220.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration
	ug/m3

APH EC5-8 aliphatics	12,000 ve
APH EC9-12 aliphatics	3,600
APH EC9-10 aromatics	<190

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Dup-1-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-04 1/7.8
Date Analyzed:	08/03/19	Data File:	080221.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	76	70	130

Compounds:	Concentration
	ug/m3

APH EC5-8 aliphatics	12,000 ve
APH EC9-12 aliphatics	2,700 fb
APH EC9-10 aromatics	<190

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	GP-04-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-05 1/3.2
Date Analyzed:	08/03/19	Data File:	080217.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	510
APH EC9-12 aliphatics	1,800
APH EC9-10 aromatics	100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SVS-02-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-06 1/3.1
Date Analyzed:	08/03/19	Data File:	080218.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	2,200 ve
APH EC9-12 aliphatics	1,100 fb
APH EC9-10 aromatics	100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SVS-01-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-07 1/3.1
Date Analyzed:	08/03/19	Data File:	080219.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	1,000
APH EC9-12 aliphatics	1,300
APH EC9-10 aromatics	78

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-08
Date Analyzed:	08/02/19	Data File:	080213.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<46
APH EC9-12 aliphatics	<35
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357
Date Collected:	Not Applicable	Lab ID:	09-1852 mb
Date Analyzed:	08/02/19	Data File:	080212.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<46
APH EC9-12 aliphatics	37 lc
APH EC9-10 aromatics	<25

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-01-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-01 1/3.2
Date Analyzed:	08/02/19	Data File:	080214.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<5.8	<1.6
1,2-Dichloroethane (EDC)	<0.13	<0.032
Benzene	3.8	1.2
Toluene	28	7.4
1,2-Dibromoethane (EDB)	<0.25	<0.032
Ethylbenzene	6.0	1.4
m,p-Xylene	24	5.4
o-Xylene	8.9	2.1
Naphthalene	<0.84	<0.16

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-02-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-02 1/3.1
Date Analyzed:	08/03/19	Data File:	080216.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<5.6	<1.5
1,2-Dichloroethane (EDC)	<0.13	<0.031
Benzene	1.5	0.47
Toluene	12	3.2
1,2-Dibromoethane (EDB)	<0.24	<0.031
Ethylbenzene	3.4	0.78
m,p-Xylene	13	3.0
o-Xylene	5.3	1.2
Naphthalene	<0.81	<0.15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-03-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-03 1/7.5
Date Analyzed:	08/03/19	Data File:	080220.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<14	<3.7
1,2-Dichloroethane (EDC)	<0.3	<0.075
Benzene	3.9	1.2
Toluene	17	4.6
1,2-Dibromoethane (EDB)	<0.58	<0.075
Ethylbenzene	4.9	1.1
m,p-Xylene	19	4.4
o-Xylene	8.1	1.9
Naphthalene	<2	<0.37

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Dup-1-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-04 1/7.8
Date Analyzed:	08/03/19	Data File:	080221.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	74	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<14	<3.9
1,2-Dichloroethane (EDC)	<0.32	<0.078
Benzene	3.4	1.1
Toluene	15	4.0
1,2-Dibromoethane (EDB)	<0.6	<0.078
Ethylbenzene	3.9	0.90
m,p-Xylene	15	3.5
o-Xylene	6.5	1.5
Naphthalene	<2	<0.39

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	GP-04-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-05 1/3.2
Date Analyzed:	08/03/19	Data File:	080217.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<5.8	<1.6
1,2-Dichloroethane (EDC)	<0.13	<0.032
Benzene	1.2	0.36
Toluene	11	2.9
1,2-Dibromoethane (EDB)	<0.25	<0.032
Ethylbenzene	3.4	0.78
m,p-Xylene	13	3.1
o-Xylene	5.7	1.3
Naphthalene	<0.84	<0.16

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVS-02-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-06 1/3.1
Date Analyzed:	08/03/19	Data File:	080218.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<5.6	<1.5
1,2-Dichloroethane (EDC)	<0.13	<0.031
Benzene	3.3	1.0
Toluene	13	3.3
1,2-Dibromoethane (EDB)	<0.24	<0.031
Ethylbenzene	2.9	0.66
m,p-Xylene	9.5	2.2
o-Xylene	4.7	1.1
Naphthalene	<0.81	<0.15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVS-01-072519	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-07 1/3.1
Date Analyzed:	08/03/19	Data File:	080219.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<5.6	<1.5
1,2-Dichloroethane (EDC)	<0.13	<0.031
Benzene	2.2	0.68
Toluene	9.3	2.5
1,2-Dibromoethane (EDB)	<0.24	<0.031
Ethylbenzene	2.6	0.61
m,p-Xylene	9.9	2.3
o-Xylene	4.5	1.0
Naphthalene	<0.81	<0.15

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	07/30/19	Project:	Aloha Cafe 180357
Date Collected:	07/25/19	Lab ID:	907561-08
Date Analyzed:	08/02/19	Data File:	080213.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	81	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<1.8	<0.5
1,2-Dichloroethane (EDC)	<0.04	<0.01
Benzene	<0.32	<0.1
Toluene	<0.38	<0.1
1,2-Dibromoethane (EDB)	<0.077	<0.01
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357
Date Collected:	Not Applicable	Lab ID:	09-1852 mb
Date Analyzed:	08/02/19	Data File:	080212.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Methyl t-butyl ether (MTBE)	<1.8	<0.5
1,2-Dichloroethane (EDC)	<0.04	<0.01
Benzene	<0.32	<0.1
Toluene	<0.38	<0.1
1,2-Dibromoethane (EDB)	<0.077	<0.01
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/09/19

Date Received: 07/30/19

Project: Aloha Cafe 180357, F&BI 907561

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 907561-01 1/3.2 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	410	440	7
APH EC9-12 aliphatics	ug/m3	2,200	2,100	5
APH EC9-10 aromatics	ug/m3	<80	<80	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	45	96	70-130
APH EC9-12 aliphatics	ug/m3	45	127	70-130
APH EC9-10 aromatics	ug/m3	45	92	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/09/19

Date Received: 07/30/19

Project: Aloha Cafe 180357, F&BI 907561

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl t-butyl ether (MTBE)	ppbv	5	83	70-130
1,2-Dichloroethane (EDC)	ppbv	5	105	70-130
Benzene	ppbv	5	94	70-130
Toluene	ppbv	5	91	70-130
1,2-Dibromoethane (EDB)	ppbv	5	103	70-130
Ethylbenzene	ppbv	5	103	70-130
m,p-Xylene	ppbv	10	104	70-130
o-Xylene	ppbv	5	107	70-130
Naphthalene	ppbv	5	81	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

407561

SAMPLE CHAIN OF CUSTODY

ME 07/30/19

Page # \_\_\_\_\_ of \_\_\_\_\_

Report To Andrew York/ESK  
 Company Aspect Consulting  
 Address 710 2nd Ave Ste 550 Seattle WA  
 City, State, ZIP \_\_\_\_\_  
 Phone 316.617.0444 Email york@aspectconsulting.com

SAMPLERS (signature) _____		PROJECT NAME <u>Alpine Cafe</u>	PO # <u>180357</u>
REPORTING LEVEL <input checked="" type="checkbox"/> Indoor Air <input type="checkbox"/> Sub Slab/Soil Gas		INVOICE TO	
<input type="checkbox"/> Deep Soil Gas <input type="checkbox"/> SVE/Grab			

TURNAROUND TIME <input checked="" type="checkbox"/> Standard <input type="checkbox"/> RUSH Rush charges authorized by: _____	SAMPLE DISPOSAL <input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Archive Samples <input type="checkbox"/> Other
---	--

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	Notes
GR-01-072519	61	3664	242	7/25/19	30	1010	5	1016				All sampled for BTEX, MTBE, EDB, EDC, EPA TO-15 BTEX, MTBE, EDB, EDC, Naphthalene & MAAPH.
GR-02-072519	02	3540	255	7/25/19	30	1102	5	1107			X	Naphthalene, & MAAPH
GR-03-072519	03	3667	257	7/25/19	30	1135	5	1141			X	
Dup-1-072519	04	2302	224	7/25/19	30		5				X	Collected within the time of the other sample
GR-04-072519	05	3287	204	7/25/19	30	1222	5	1227			X	
SVS-02-072519	06	2297	244	7/25/19	30	1330	5	1335			X	
SVS-D1-072519	07	3387	259	7/25/19	30	1357	5	1403			X	
Trip Blank	08	2432	-	-	-	-	-	-			X	Samples received at 25 °C

Friedman & Bruvo, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282  
 Fax (206) 283-5044  
 FORMS\COC\COCTO-15.DOC

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Received by: _____	_____	Daniel Brack	Aspect Consulting	7/30/19	1536		
Relinquished by: _____	_____	DAVID WILKINS	FED EX	7/30/19	3:26		
Received by: _____	_____	Gene Jones	FED EX	7/30/19	1536		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

September 11, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included is the amended report from the testing of material submitted on August 1, 2019 from the Aloha Cafe 180357, F&BI 908023 project. The second set of NWTPH-Gx quality assurance was added to the report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0812R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

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August 12, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on August 1, 2019 from the Aloha Cafe 180357, F&BI 908023 project. There are 52 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0812R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 1, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 908023 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
908023 -01	MW-16-073119
908023 -02	MW-18-073119
908023 -03	MW-14-073119
908023 -04	MW-13-073119
908023 -05	Dup-01-073119
908023 -06	MW-17-073119
908023 -07	MW-19-073119
908023 -08	MW-7-073119
908023 -09	MW-11-073119
908023 -10	MW-6-073119
908023 -11	MW-12-080119
908023 -12	MW-2-080119
908023 -13	MW-10-080119
908023 -14	MW-9-080119
908023 -15	Rinse Blank-080119
908023 -16	MW-1-080119
908023 -17	Trip Blank

The NWTPH-Dx surrogate in sample Rinse Blank-080119 exceeded the acceptance criteria. No material was detected in the sample, therefore the results were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

Date Extracted: 08/06/19

Date Analyzed: 08/06/19, 08/07/19, 08/08/19, and 08/12/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-16-073119 908023-01	<100	109
MW-18-073119 908023-02	<100	110
MW-14-073119 908023-03	7,500	106
MW-13-073119 908023-04	1,400	92
Dup-01-073119 908023-05	9,700	107
MW-17-073119 908023-06 1/10	1,800	100
MW-19-073119 908023-07	<100	109
MW-7-073119 908023-08	<100	113
MW-11-073119 908023-09 1/20	13,000	98
MW-6-073119 908023-10	<100	115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

Date Extracted: 08/06/19

Date Analyzed: 08/06/19, 08/07/19, 08/08/19, and 08/12/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-12-080119 908023-11	240	119
MW-2-080119 908023-12	1,600	114
MW-10-080119 908023-13 1/20	19,000	109
MW-9-080119 908023-14	<100	101
Rinse Blank-080119 908023-15	<100	91
MW-1-080119 908023-16 1/20	24,000	105
Trip Blank 908023-17	<100	95
Method Blank 09-1950 MB	<100	99
Method Blank 09-1903 MB	<100	116

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19  
 Date Received: 08/01/19  
 Project: Aloha Cafe 180357, F&BI 908023  
 Date Extracted: 08/02/19  
 Date Analyzed: 08/02/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
 FOR TOTAL PETROLEUM HYDROCARBONS AS  
 DIESEL AND MOTOR OIL  
 USING METHOD NWTPH-D<sub>x</sub>  
 Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-16-073119 908023-01	84 x	<250	119
MW-18-073119 908023-02	55 x	<250	108
MW-14-073119 908023-03	1,200 x	330 x	121
MW-13-073119 908023-04	530 x	<250	131
Dup-01-073119 908023-05	1,100 x	270 x	116
MW-17-073119 908023-06	320 x	<250	113
MW-19-073119 908023-07	<50	<250	115
MW-7-073119 908023-08	83 x	<250	114
MW-11-073119 908023-09	1,100 x	<250	116
MW-6-073119 908023-10	68 x	<250	118
MW-12-080119 908023-11	310 x	<250	114

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

Date Extracted: 08/02/19

Date Analyzed: 08/02/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-2-080119 908023-12	790 x	<250	128
MW-10-080119 908023-13	1,900 x	260 x	125
MW-9-080119 908023-14	88 x	<250	122
Rinse Blank-080119 908023-15	<50	<250	142 vo
MW-1-080119 908023-16	2,100 x	1,000 x	126
Method Blank 09-1899 MB	<50	<250	101

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-16-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-01
Date Analyzed:	08/05/19	Data File:	908023-01.059
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-18-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-02
Date Analyzed:	08/05/19	Data File:	908023-02.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-14-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-03
Date Analyzed:	08/05/19	Data File:	908023-03.063
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-04
Date Analyzed:	08/05/19	Data File:	908023-04.064
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Dup-01-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-05
Date Analyzed:	08/05/19	Data File:	908023-05.065
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-17-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-06
Date Analyzed:	08/05/19	Data File:	908023-06.066
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-07
Date Analyzed:	08/05/19	Data File:	908023-07.069
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-7-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-08
Date Analyzed:	08/05/19	Data File:	908023-08.070
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-11-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-09
Date Analyzed:	08/05/19	Data File:	908023-09.071
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	3.49
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-10
Date Analyzed:	08/05/19	Data File:	908023-10.072
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-12-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-11
Date Analyzed:	08/05/19	Data File:	908023-11.073
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-12
Date Analyzed:	08/05/19	Data File:	908023-12.074
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-10-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-13
Date Analyzed:	08/05/19	Data File:	908023-13.075
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-9-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-14
Date Analyzed:	08/05/19	Data File:	908023-14.076
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Rinse Blank-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-15
Date Analyzed:	08/05/19	Data File:	908023-15.077
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-16
Date Analyzed:	08/05/19	Data File:	908023-16.078
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	I9-472 mb
Date Analyzed:	08/05/19	Data File:	I9-472 mb.057
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-16-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-01
Date Analyzed:	08/02/19	Data File:	080221.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-18-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-02
Date Analyzed:	08/02/19	Data File:	080222.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	1.0
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-14-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-03
Date Analyzed:	08/02/19	Data File:	080223.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.7
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	1,300 ve
Trichloroethene	<1
Toluene	32
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	130
m,p-Xylene	72
o-Xylene	18
Naphthalene	50

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-14-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-03 1/100
Date Analyzed:	08/05/19	Data File:	080543.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<20
Chloroethane	<100
1,1-Dichloroethene	<100
Methylene chloride	<500
Methyl t-butyl ether (MTBE)	<100
trans-1,2-Dichloroethene	<100
1,1-Dichloroethane	<100
cis-1,2-Dichloroethene	<100
1,2-Dichloroethane (EDC)	<100
1,1,1-Trichloroethane	<100
Benzene	2,400
Trichloroethene	<100
Toluene	<100
Tetrachloroethene	<100
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	120
m,p-Xylene	<200
o-Xylene	<100
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-13-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-04
Date Analyzed:	08/05/19	Data File:	080530.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	7.5
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Dup-01-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-05
Date Analyzed:	08/02/19	Data File:	080225.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.8
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	1,400 ve
Trichloroethene	<1
Toluene	45
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	190 ve
m,p-Xylene	120
o-Xylene	25
Naphthalene	77

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Dup-01-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-05 1/100
Date Analyzed:	08/05/19	Data File:	080544.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<20
Chloroethane	<100
1,1-Dichloroethene	<100
Methylene chloride	<500
Methyl t-butyl ether (MTBE)	<100
trans-1,2-Dichloroethene	<100
1,1-Dichloroethane	<100
cis-1,2-Dichloroethene	<100
1,2-Dichloroethane (EDC)	<100
1,1,1-Trichloroethane	<100
Benzene	3,500
Trichloroethene	<100
Toluene	<100
Tetrachloroethene	<100
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	170
m,p-Xylene	<200
o-Xylene	<100
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-17-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-06
Date Analyzed:	08/05/19	Data File:	080531.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-19-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-07
Date Analyzed:	08/05/19	Data File:	080532.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	1.0
Toluene	<1
Tetrachloroethene	17
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-08
Date Analyzed:	08/05/19	Data File:	080533.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-09
Date Analyzed:	08/02/19	Data File:	080229.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	320 ve
Toluene	1,600 ve
Ethylbenzene	450 ve
m,p-Xylene	1,300 ve
o-Xylene	460 ve
Naphthalene	42

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-09 1/100
Date Analyzed:	08/05/19	Data File:	080545.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	320
Toluene	1,800
Ethylbenzene	410
m,p-Xylene	1,000
o-Xylene	400
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-10
Date Analyzed:	08/05/19	Data File:	080534.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-11
Date Analyzed:	08/05/19	Data File:	080535.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	0.59
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-12
Date Analyzed:	08/02/19	Data File:	080232.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	13
Toluene	2.2
Ethylbenzene	6.5
m,p-Xylene	5.6
o-Xylene	1.8
Naphthalene	33

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-13
Date Analyzed:	08/02/19	Data File:	080233.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	1,200 ve
Toluene	44
Ethylbenzene	680 ve
m,p-Xylene	1,300 ve
o-Xylene	2.7
Naphthalene	190 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-13 1/100
Date Analyzed:	08/05/19	Data File:	080546.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	94	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	2,400
Toluene	<100
Ethylbenzene	670
m,p-Xylene	1,100
o-Xylene	<100
Naphthalene	160

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-9-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-14
Date Analyzed:	08/05/19	Data File:	080536.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Rinse Blank-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-15
Date Analyzed:	08/07/19	Data File:	080738.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-16
Date Analyzed:	08/02/19	Data File:	080236.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	1,400 ve
Toluene	420 ve
Ethylbenzene	550 ve
m,p-Xylene	1,500 ve
o-Xylene	380 ve
Naphthalene	130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-16 1/100
Date Analyzed:	08/05/19	Data File:	080547.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	4,200
Toluene	410
Ethylbenzene	520
m,p-Xylene	1,300
o-Xylene	350
Naphthalene	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-17
Date Analyzed:	08/05/19	Data File:	080537.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	09-1853 mb
Date Analyzed:	08/02/19	Data File:	080220.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 908067-06 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	95	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 908177-09 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	88	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	5,000	97	88	61-133	10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 908023-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	68 b	68 b	75-125	0 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	94	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 908023-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	98	61-139
Chloroethane	ug/L (ppb)	50	<1	104	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	113	71-123
Methylene chloride	ug/L (ppb)	50	<5	88	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	96	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	99	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	96	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	104	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	103	75-121
Benzene	ug/L (ppb)	50	0.72	100	75-114
Trichloroethene	ug/L (ppb)	50	<1	100	73-122
Toluene	ug/L (ppb)	50	<1	102	73-117
Tetrachloroethene	ug/L (ppb)	50	<1	100	40-155
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	110	79-120
Ethylbenzene	ug/L (ppb)	50	<1	103	66-124
m,p-Xylene	ug/L (ppb)	100	<2	106	63-128
o-Xylene	ug/L (ppb)	50	<1	102	64-129
Naphthalene	ug/L (ppb)	50	<1	104	60-145

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	96	100	70-128	4
Chloroethane	ug/L (ppb)	50	104	108	66-149	4
1,1-Dichloroethene	ug/L (ppb)	50	109	112	72-121	3
Methylene chloride	ug/L (ppb)	50	85	87	63-132	2
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	92	96	70-122	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	98	100	76-118	2
1,1-Dichloroethane	ug/L (ppb)	50	96	98	77-119	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	97	76-119	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	103	106	75-116	3
1,1,1-Trichloroethane	ug/L (ppb)	50	103	106	80-116	3
Benzene	ug/L (ppb)	50	96	100	75-116	4
Trichloroethene	ug/L (ppb)	50	100	103	72-119	3
Toluene	ug/L (ppb)	50	100	104	79-115	4
Tetrachloroethene	ug/L (ppb)	50	100	103	78-109	3
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	111	117	82-118	5
Ethylbenzene	ug/L (ppb)	50	102	106	83-111	4
m,p-Xylene	ug/L (ppb)	100	106	110	81-112	4
o-Xylene	ug/L (ppb)	50	101	104	81-117	3
Naphthalene	ug/L (ppb)	50	95	99	72-131	4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

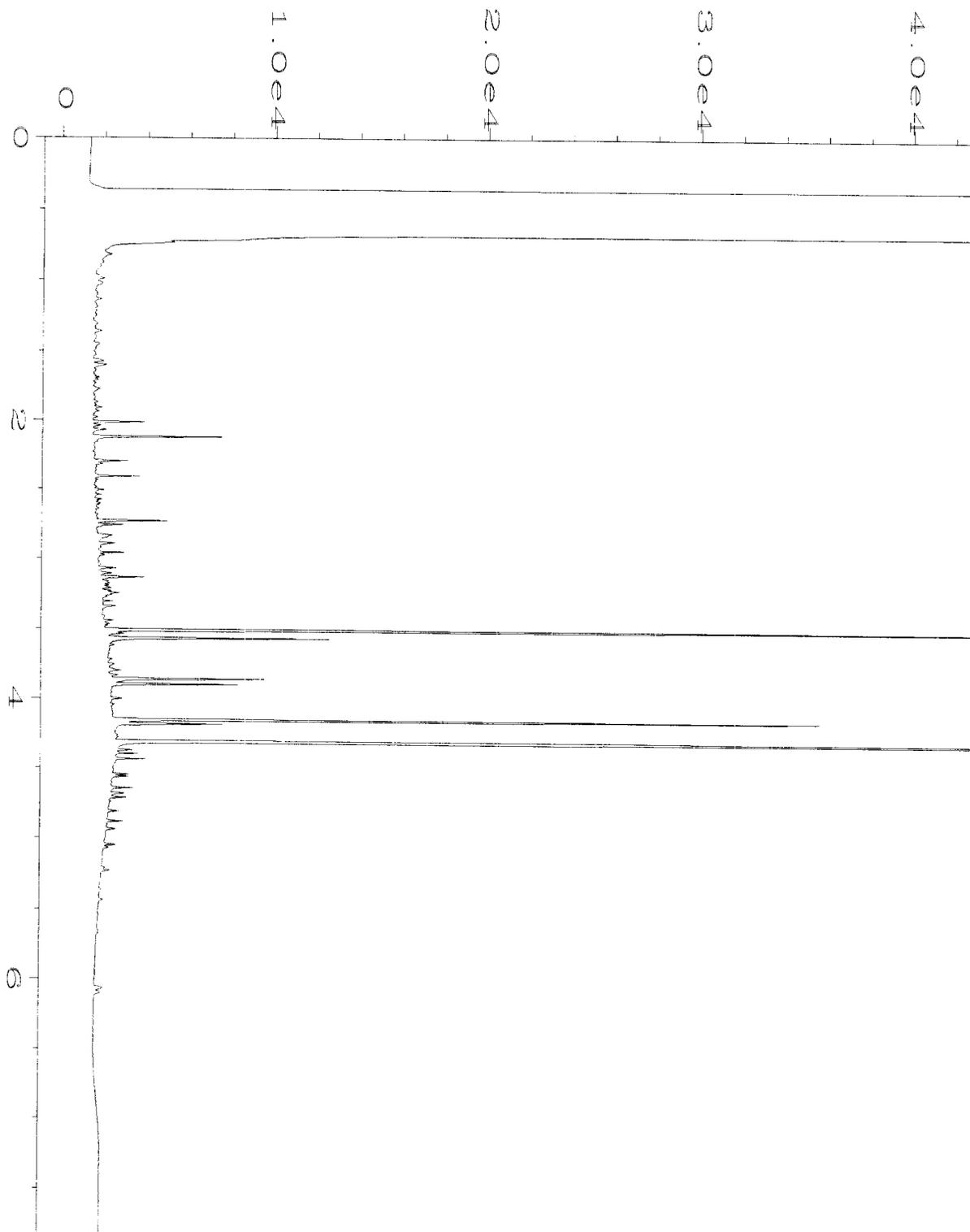
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

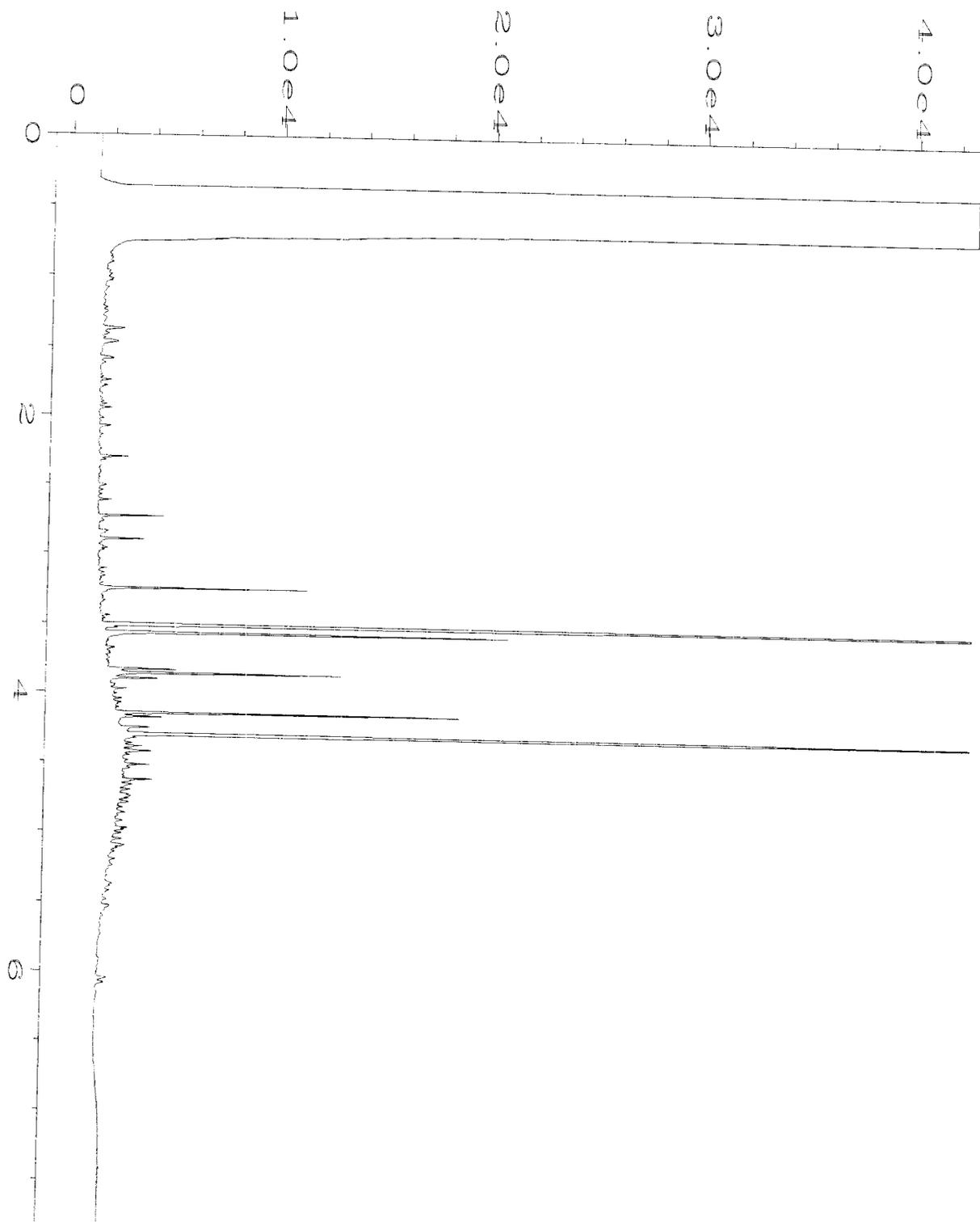
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

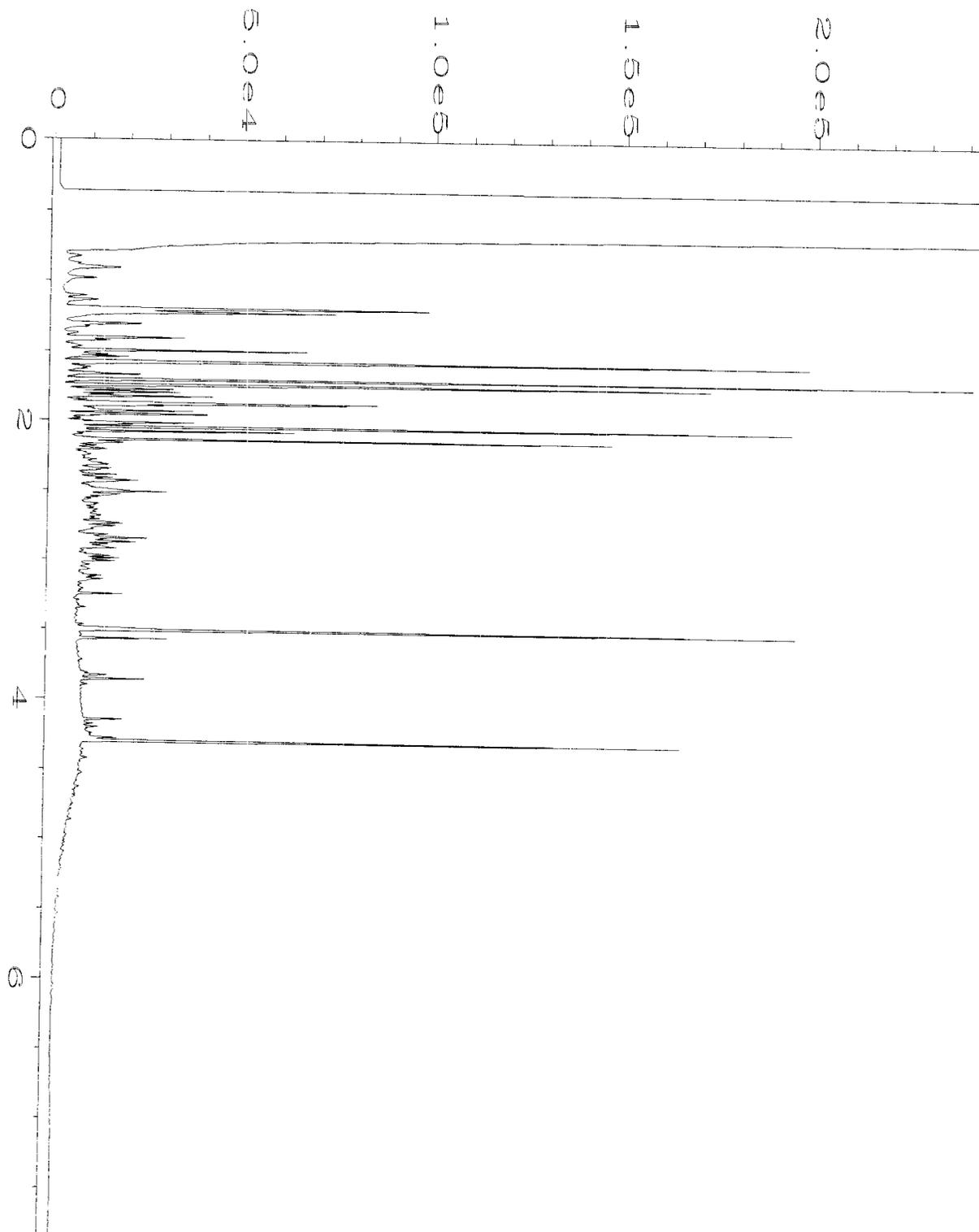
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



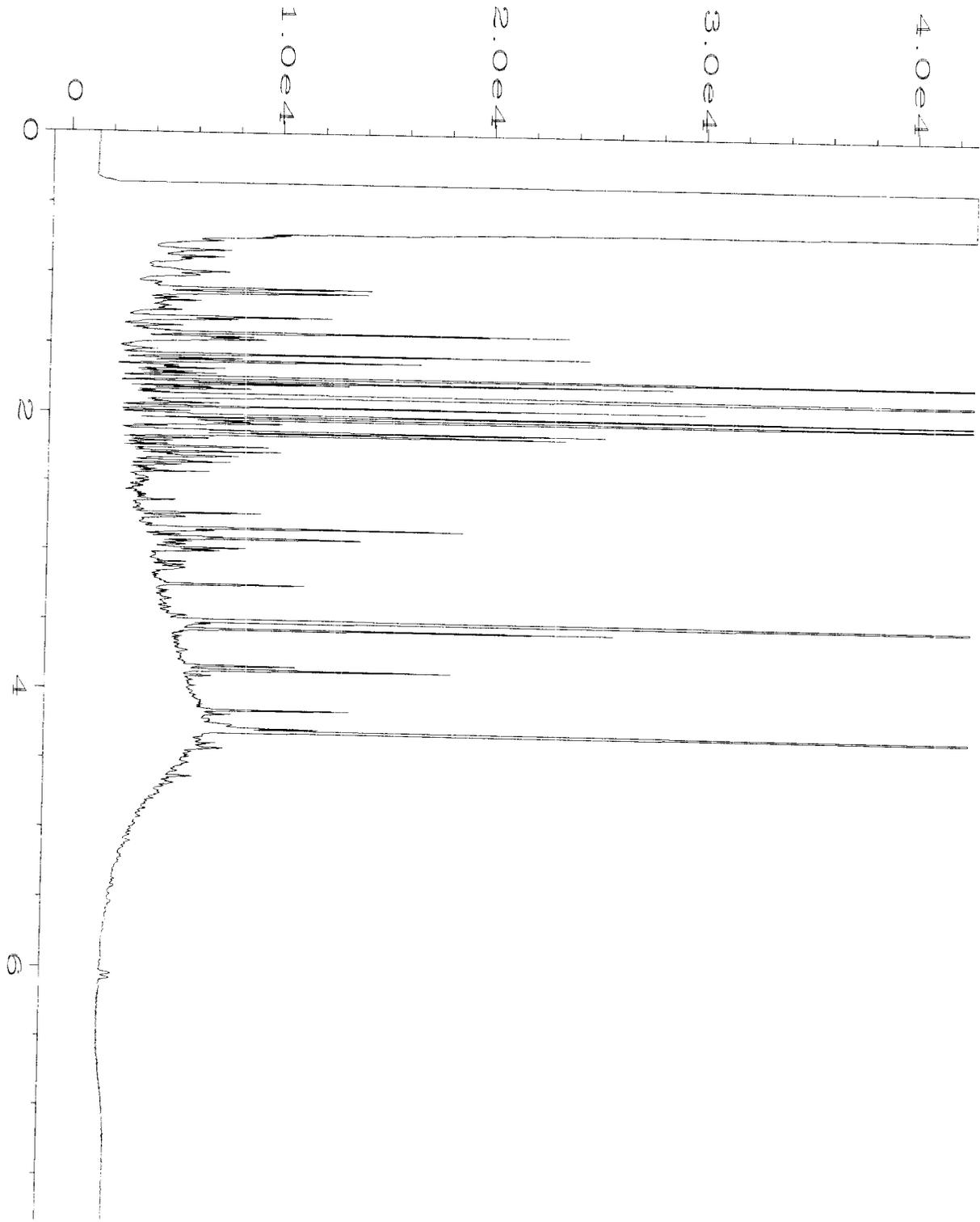
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Operator	: TL	Vial Number	: 9
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-01	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 01:02 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:29 AM		



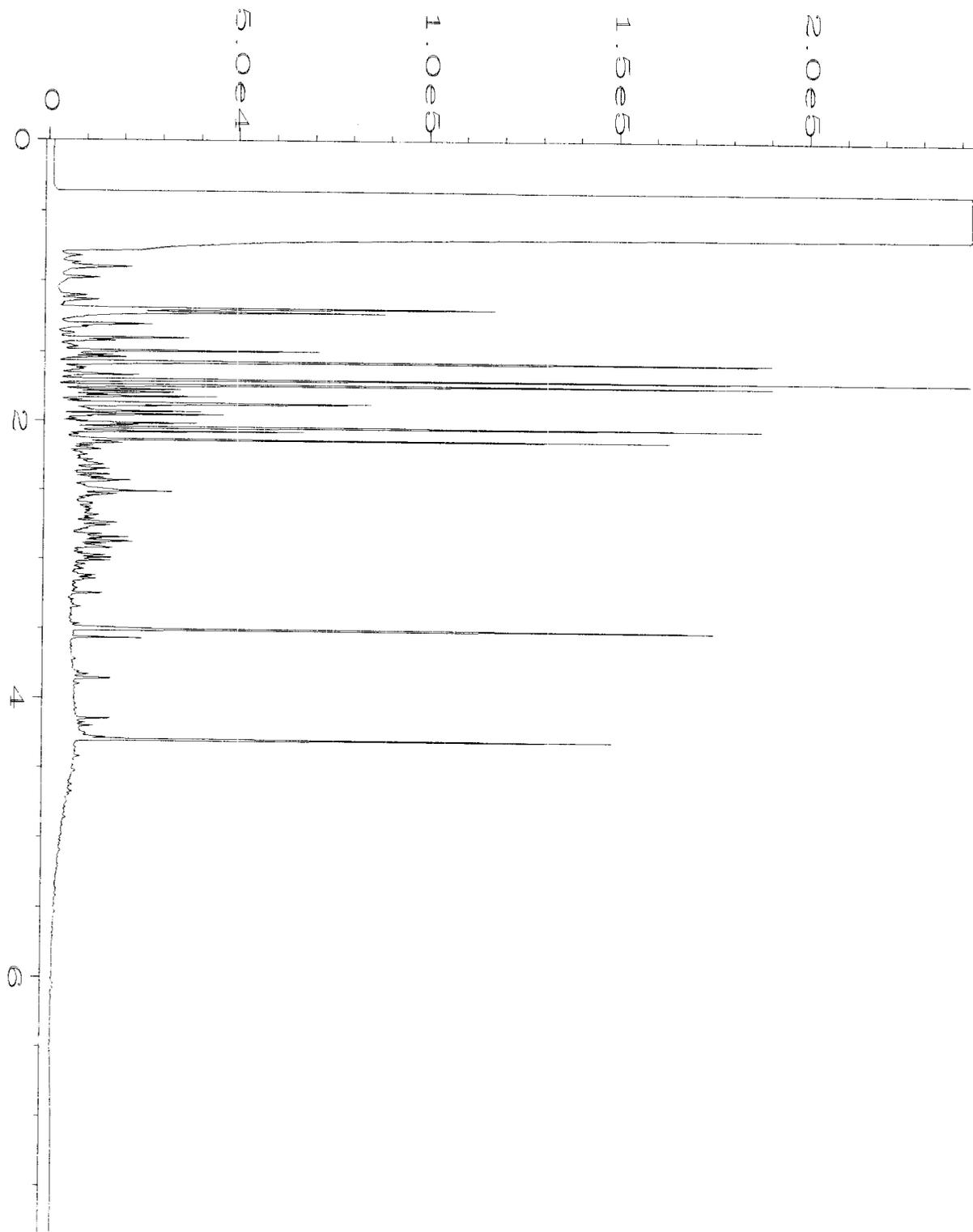
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Operator	: TL	Vial Number	: 10
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-02	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 01:25 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:40 AM		



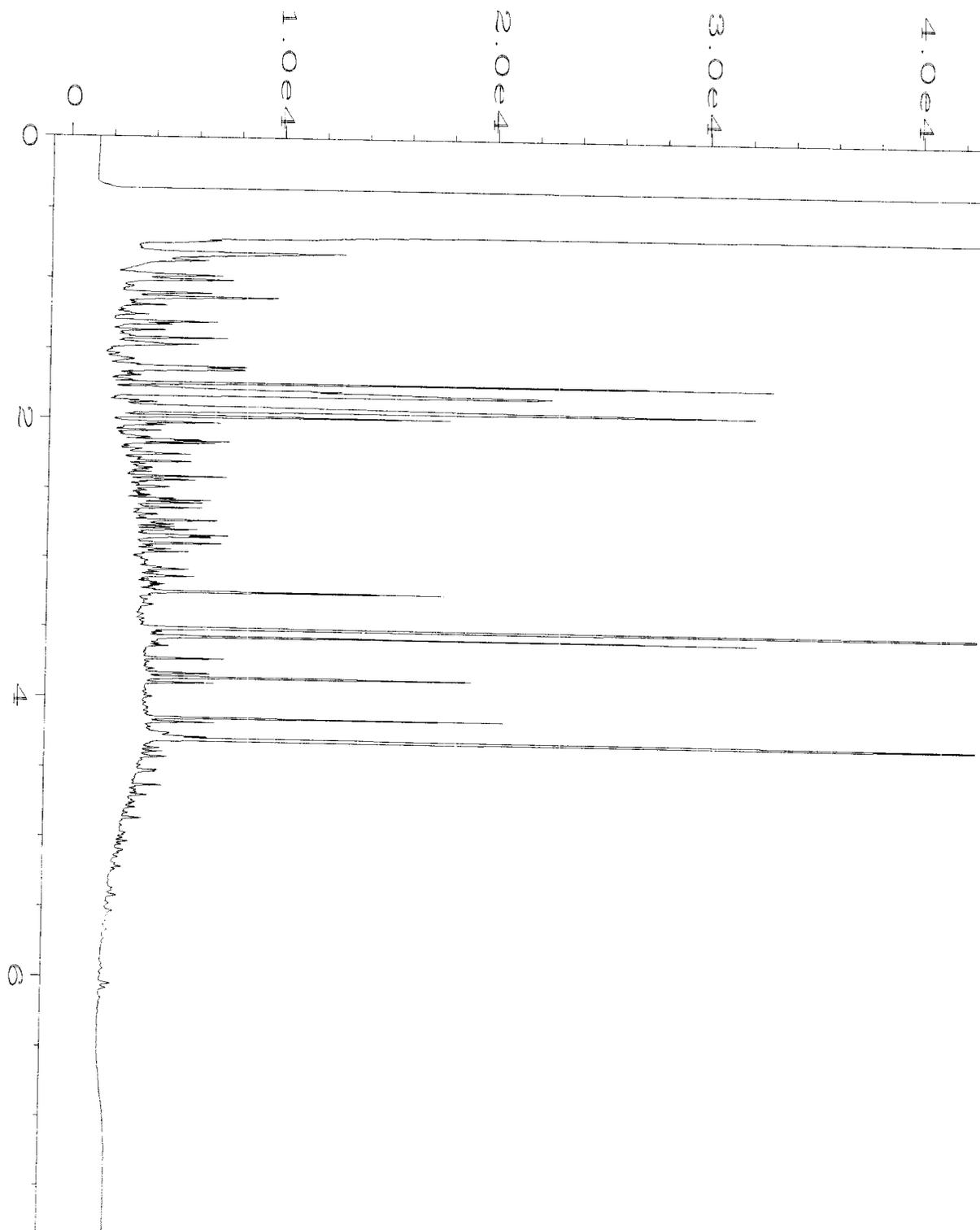
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\011F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 11
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-03	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 01:38 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:41 AM		



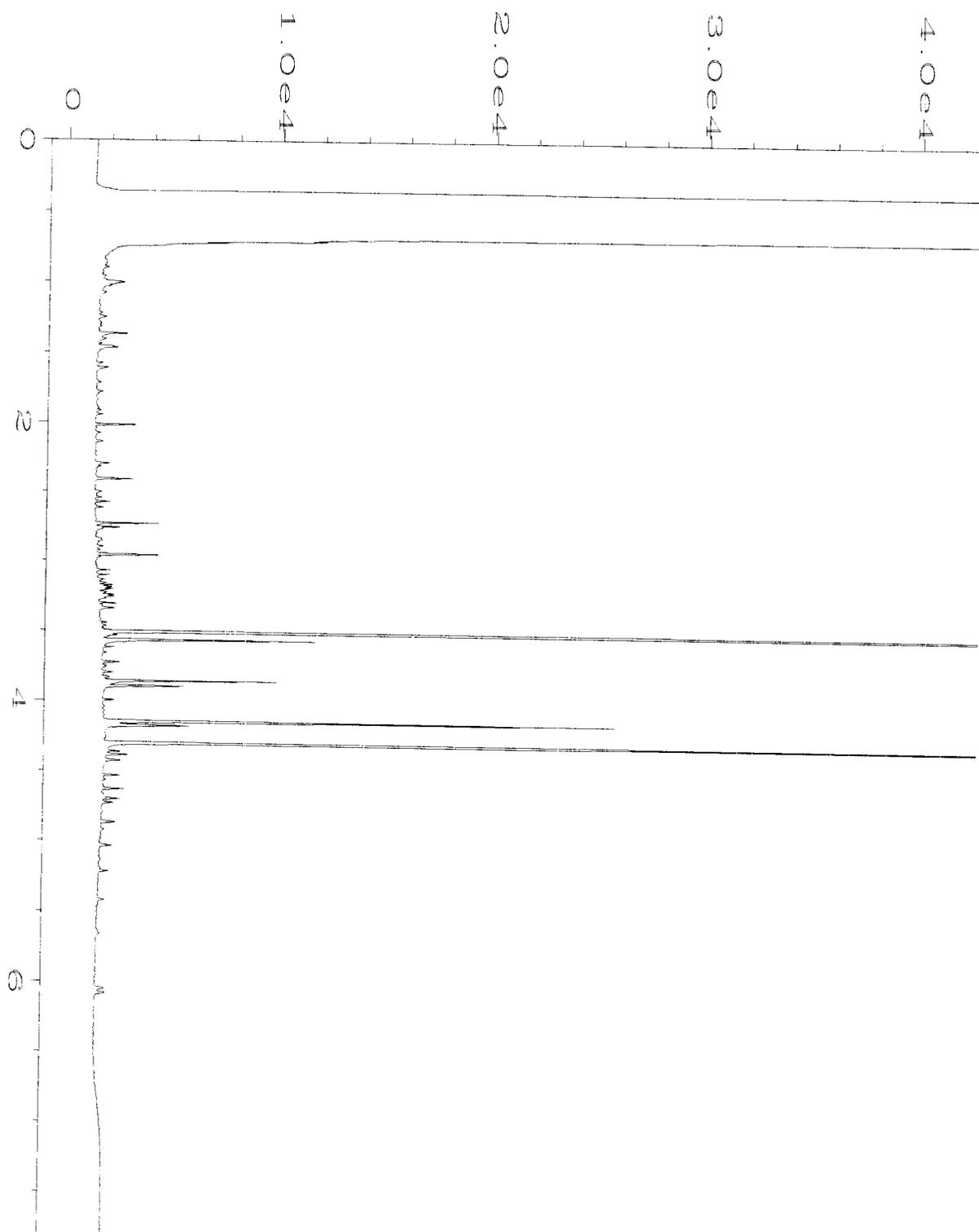
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\012F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 12
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-04	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 01:51 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:30 AM		



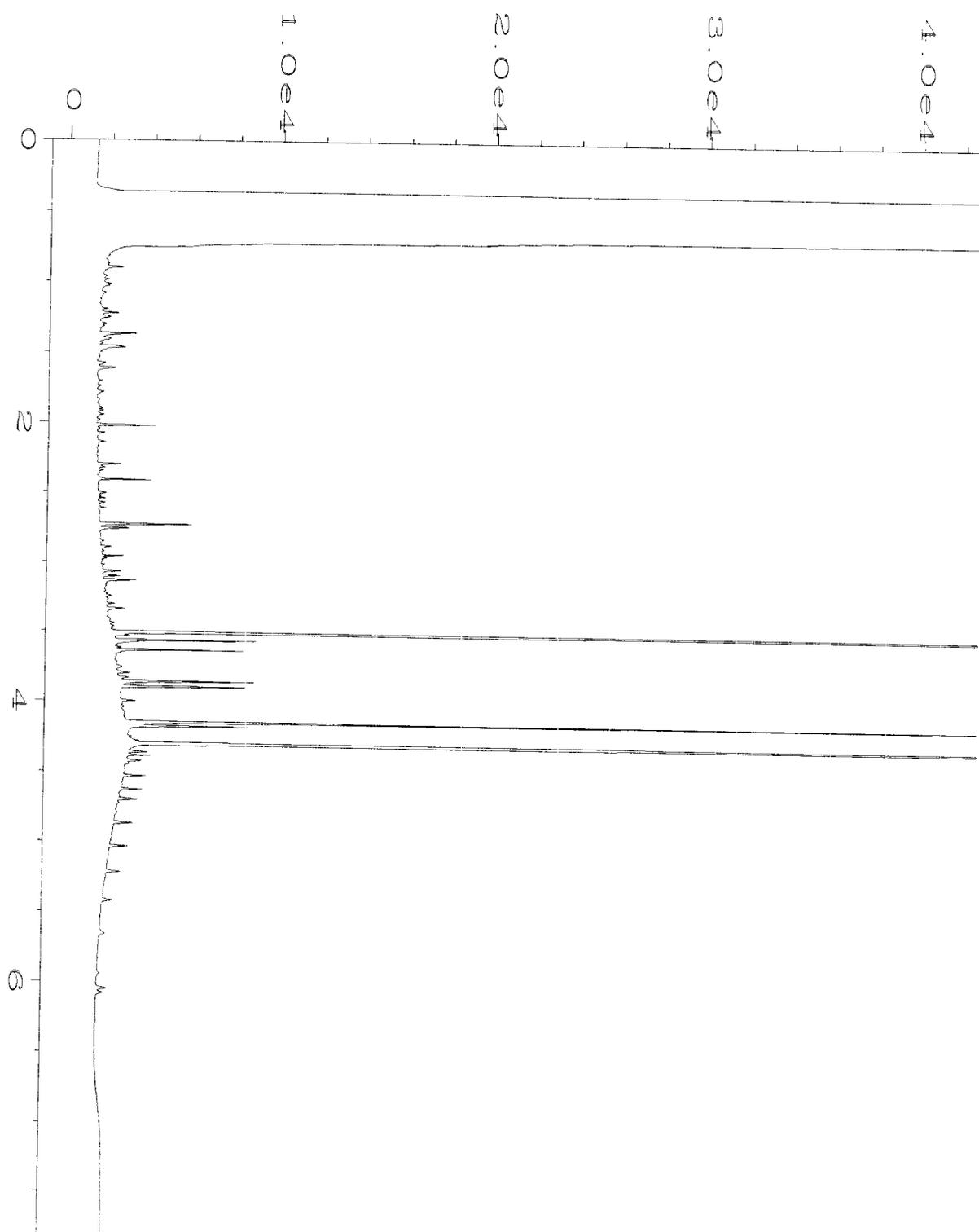
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\013F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 13
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-05	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:03 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:41 AM		



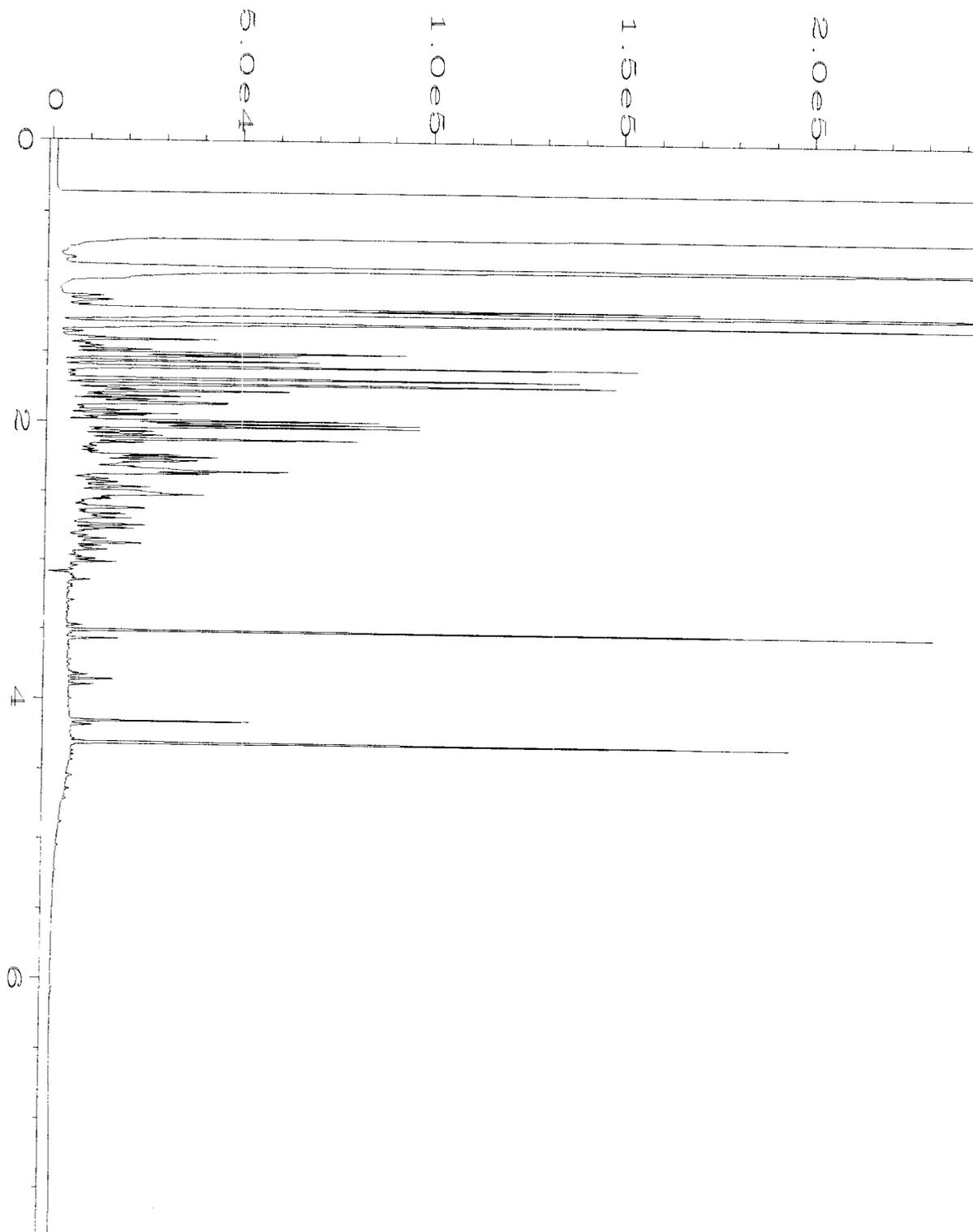
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\014F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 14
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-06	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:16 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:37 AM		



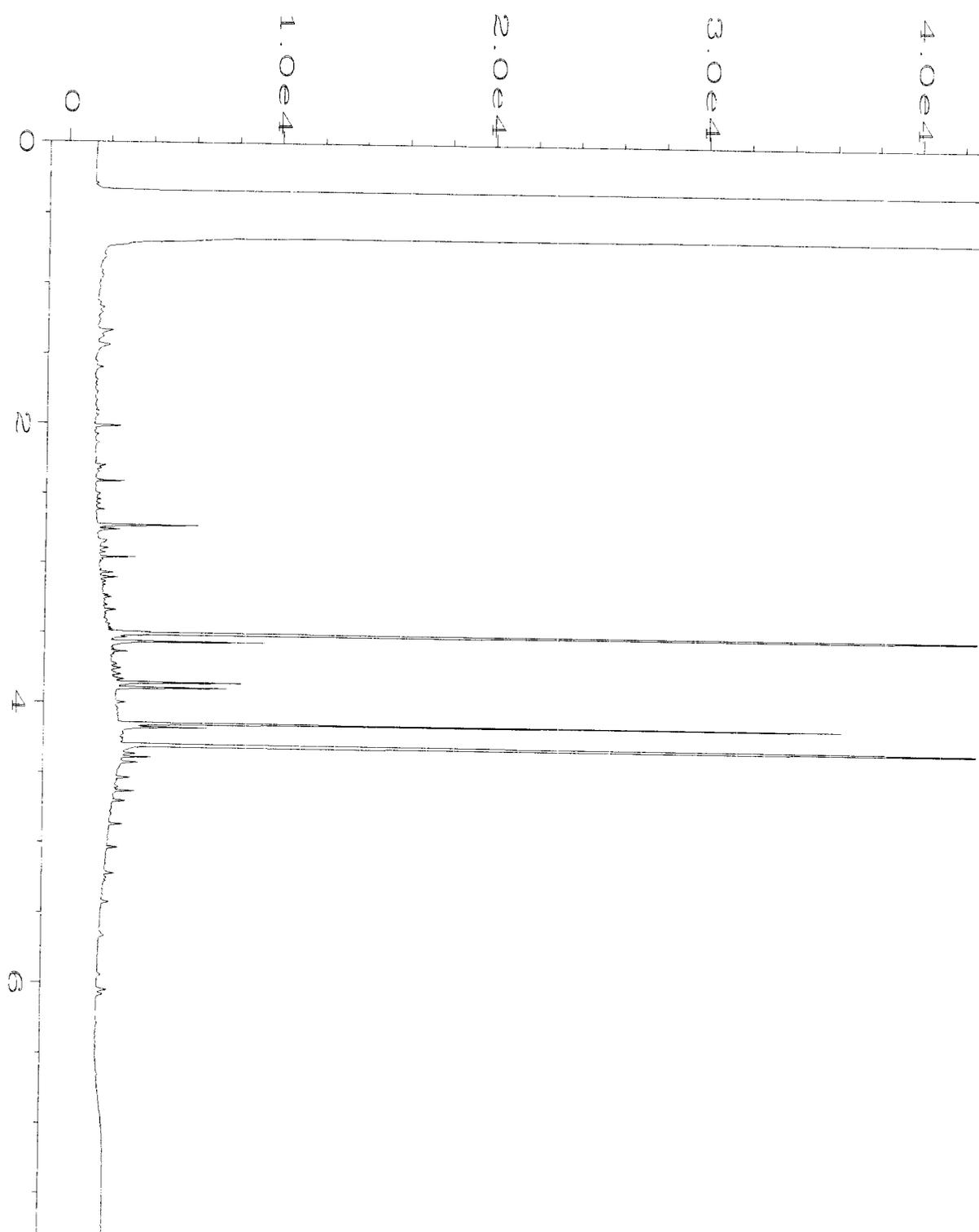
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Operator	: TL	Vial Number	: 15
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-07	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:29 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:37 AM		



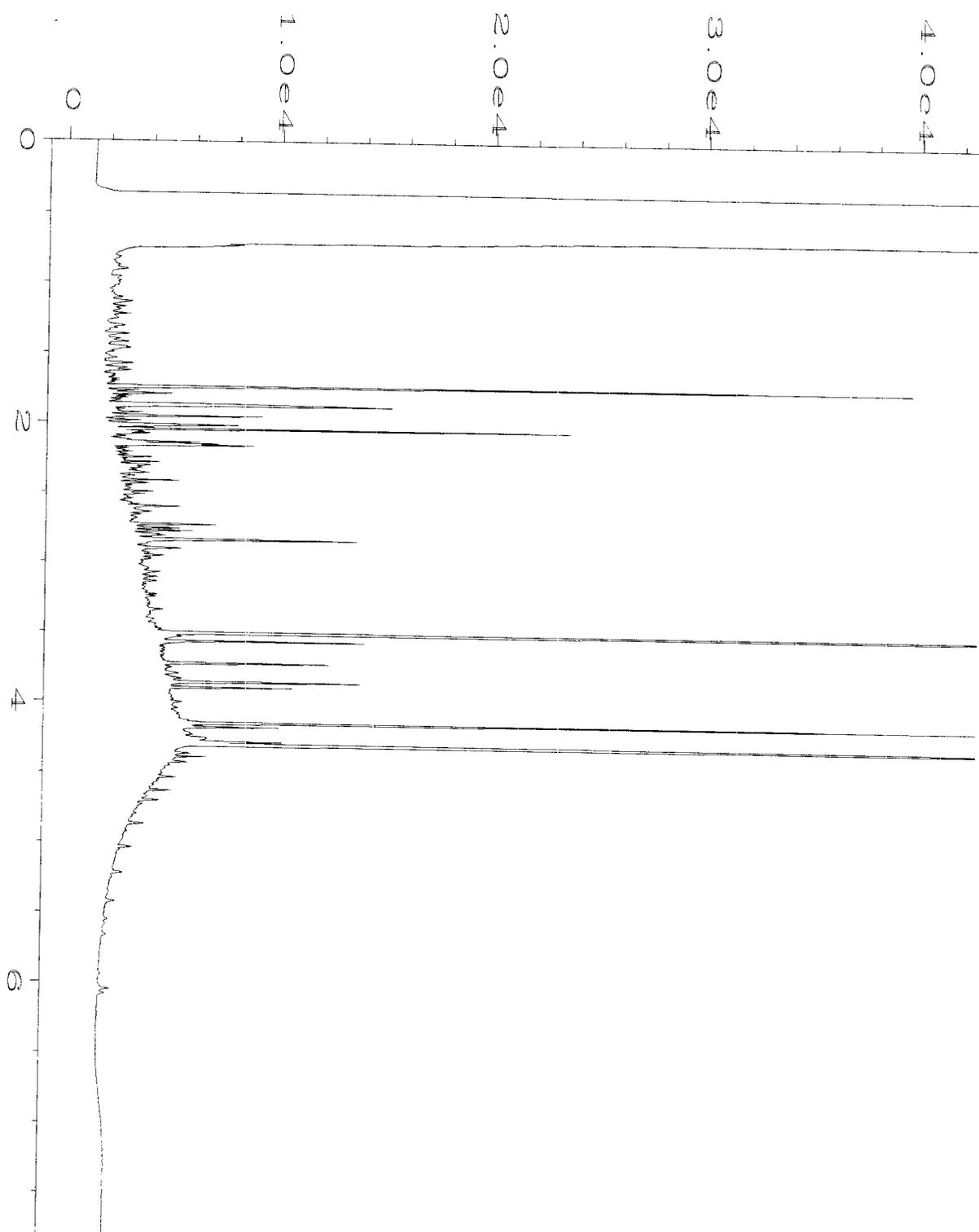
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\016F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 16
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-08	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:41 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:41 AM		



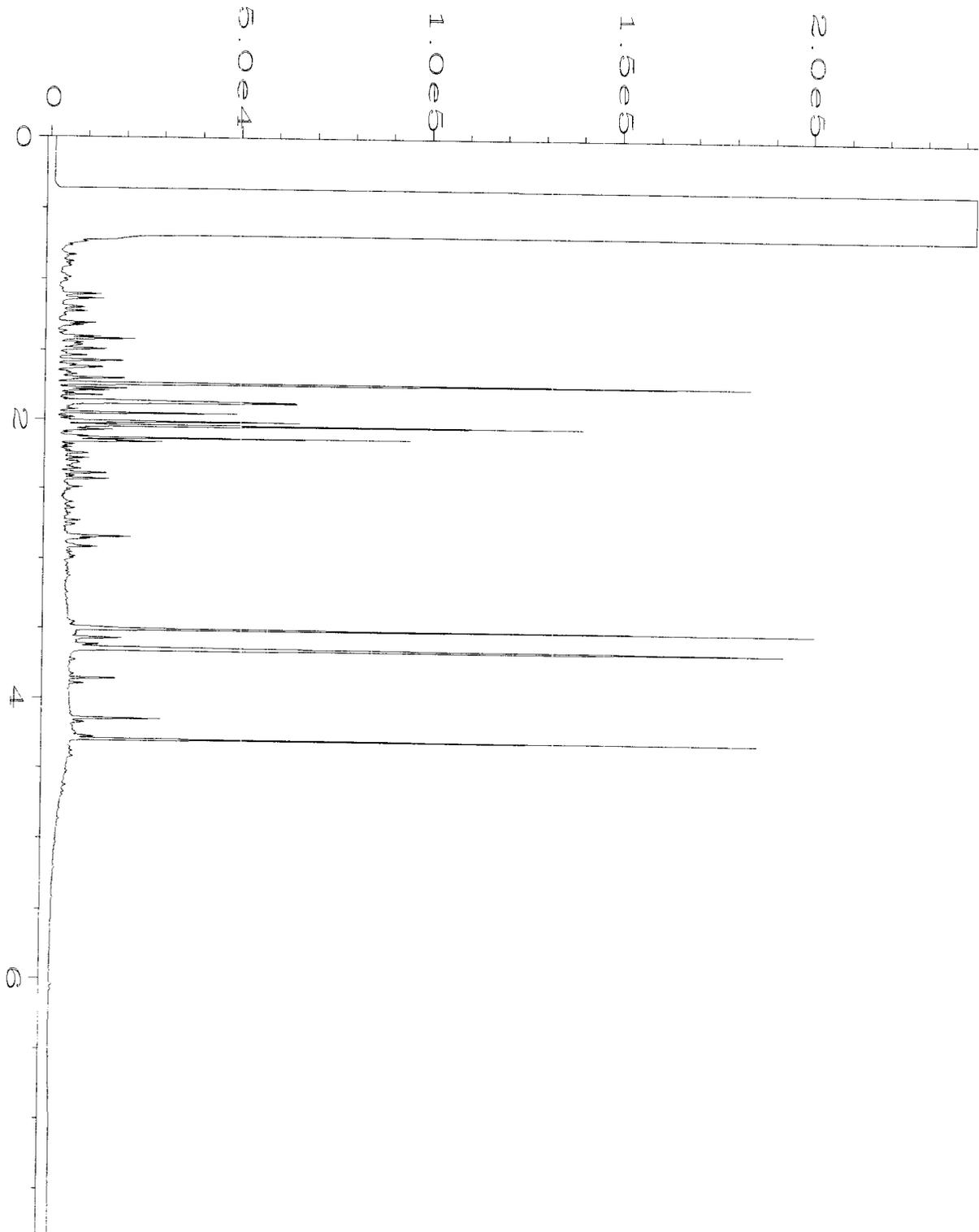
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\017F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 17
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-09	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:29 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:40 AM		



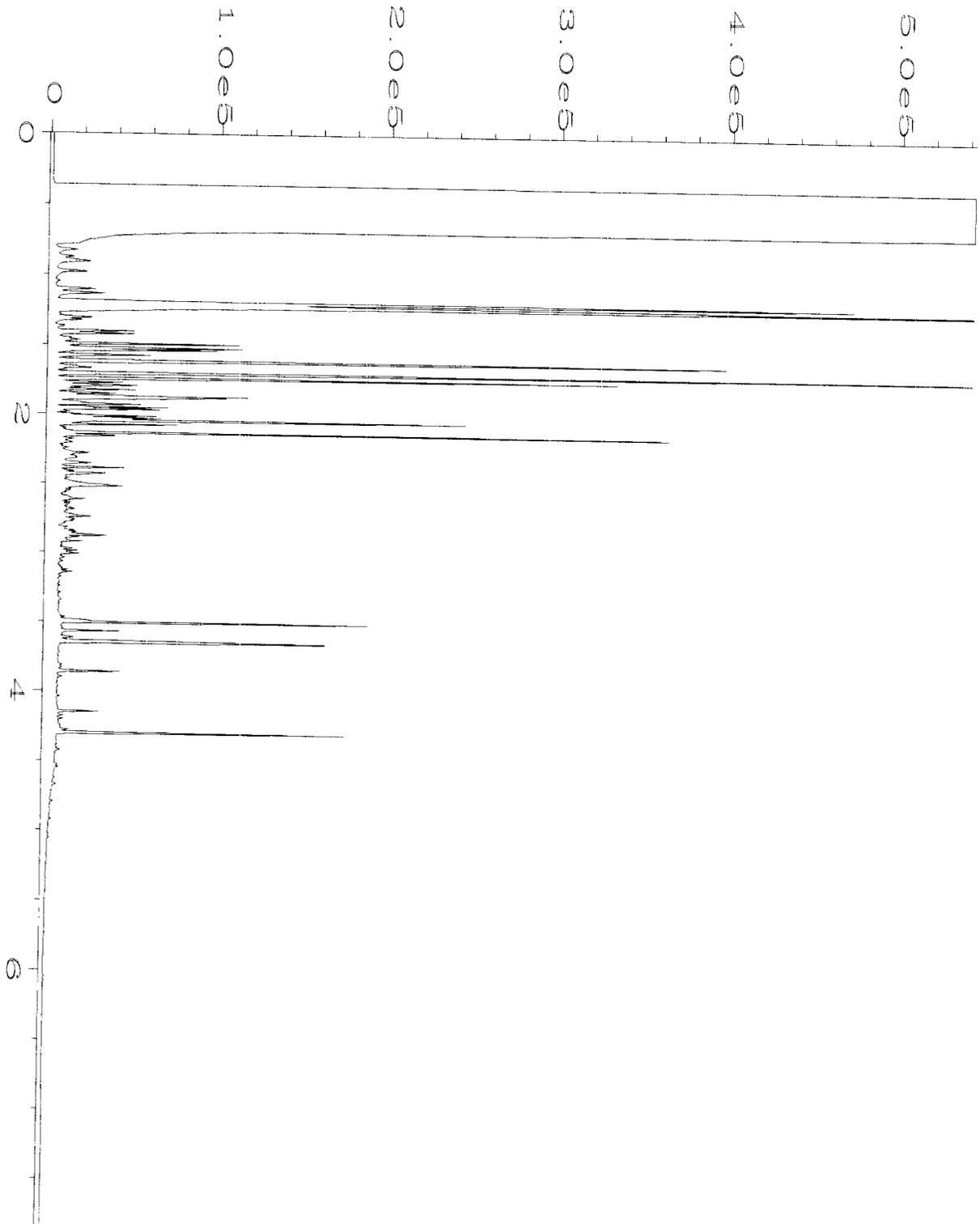
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\018F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 18
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-10	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:39 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



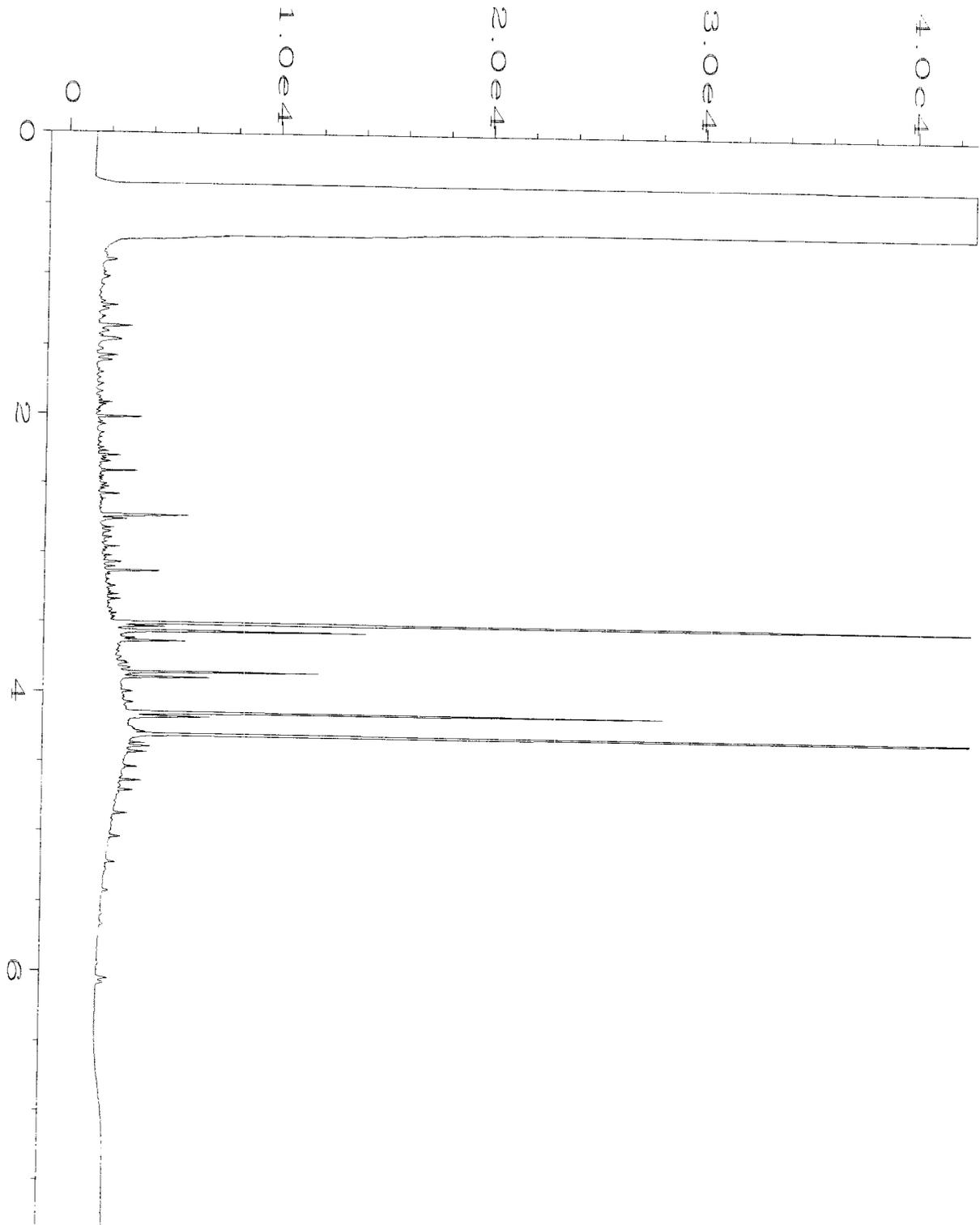
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Operator	: TL	Vial Number	: 19
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-11	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:52 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



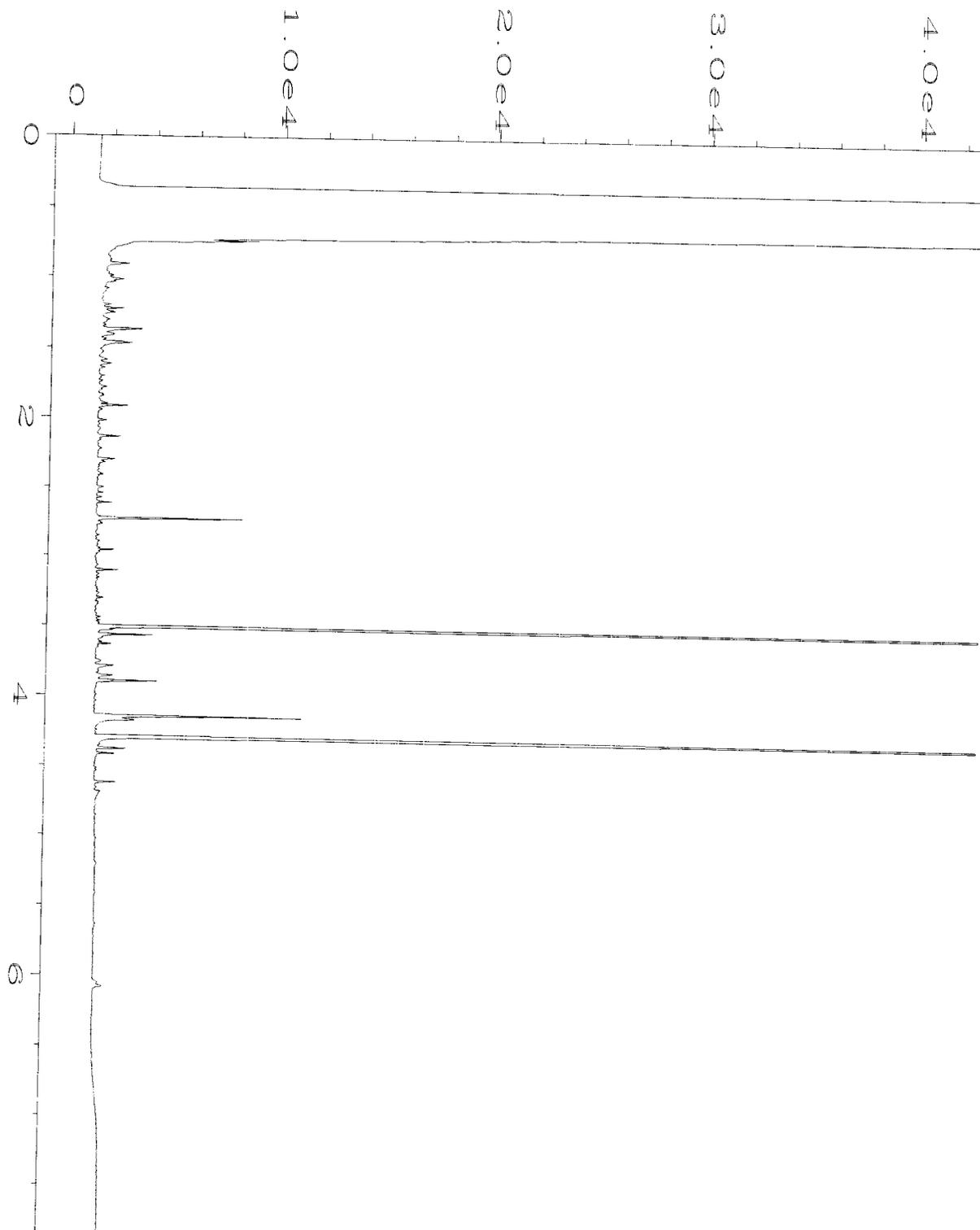
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Operator	: TL	Vial Number	: 20
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-12	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 04:05 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



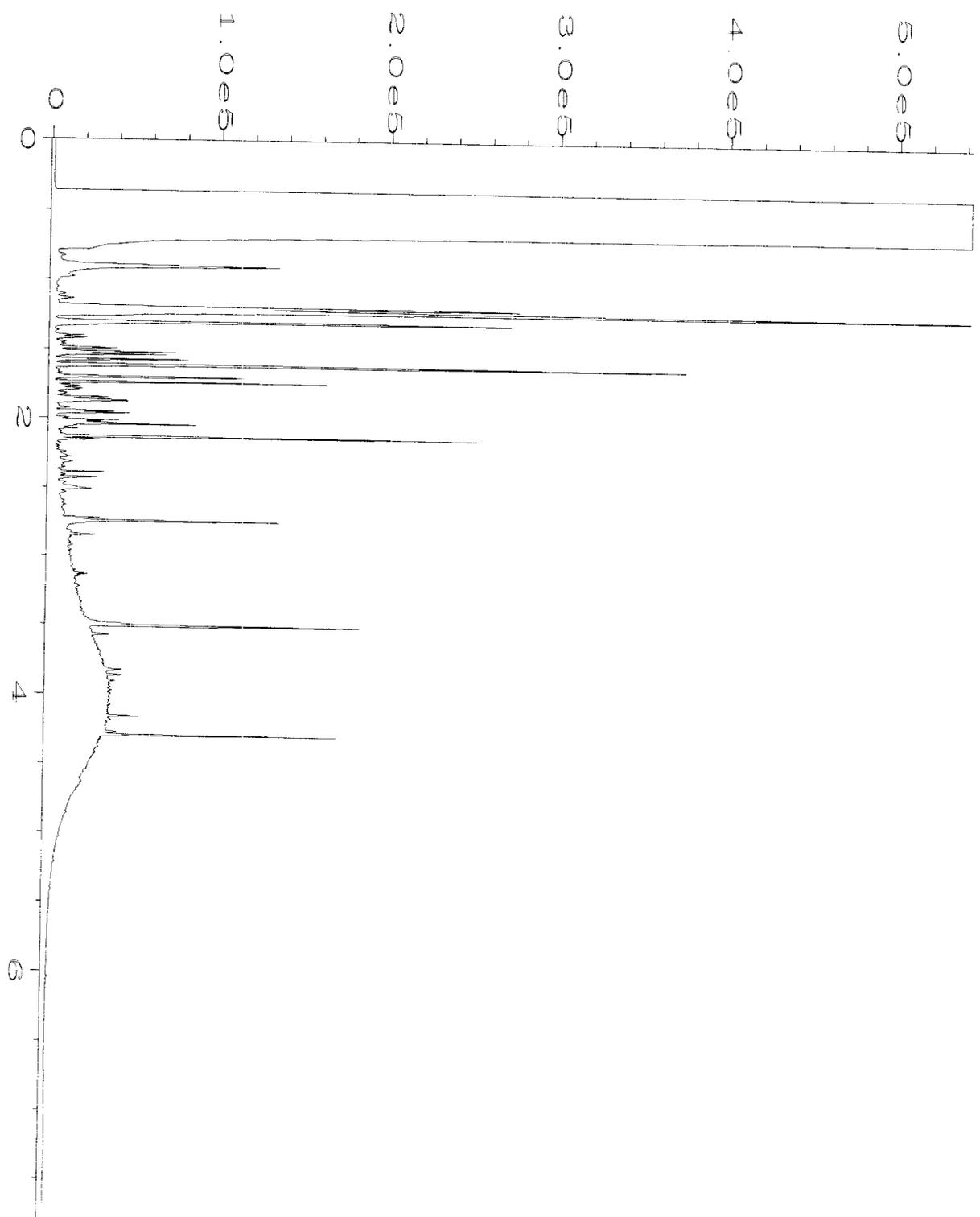
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Operator	: TL	Vial Number	: 21
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-13	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 04:17 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



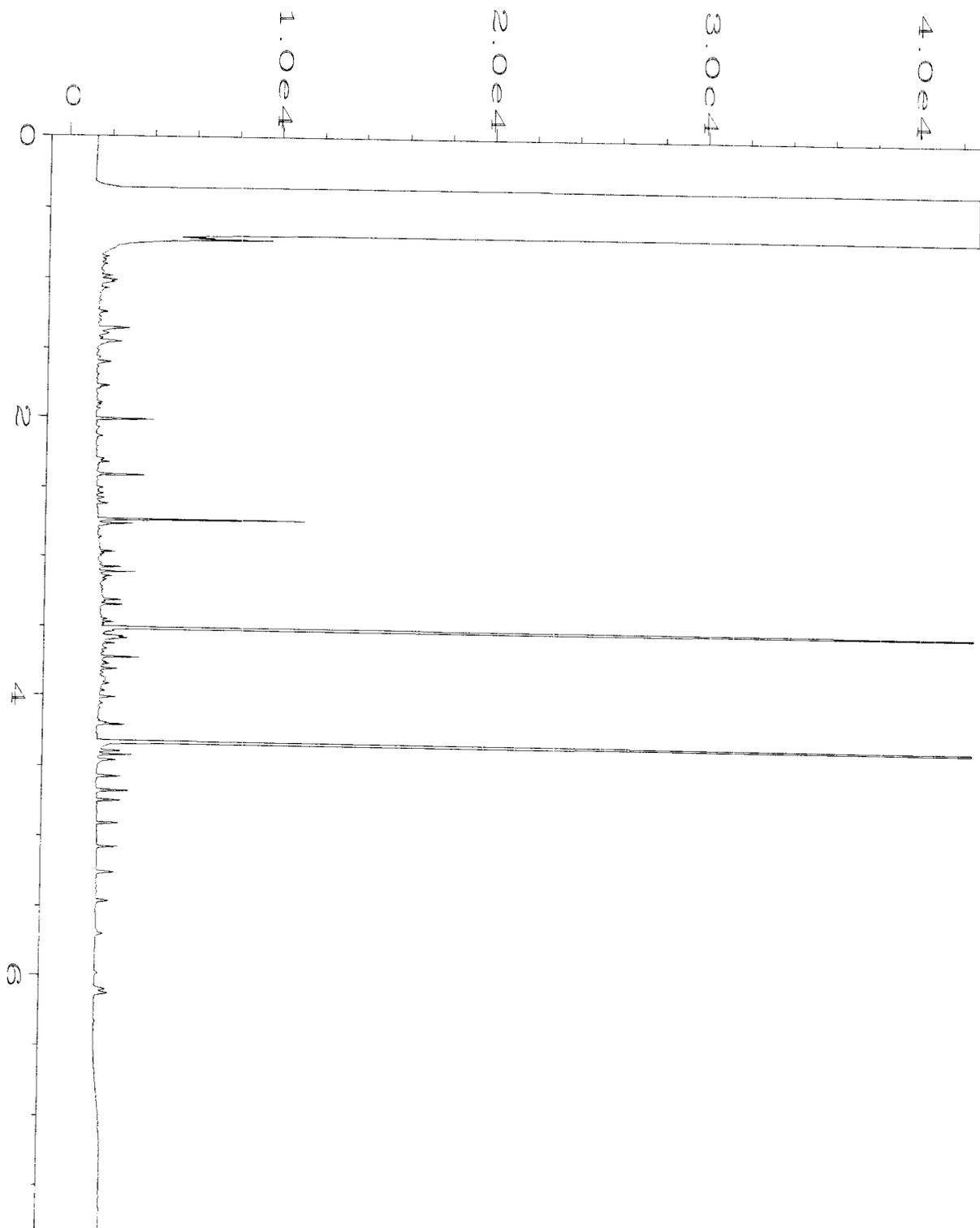
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\022F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 22
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-14	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 04:30 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:43 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-02-19\023F1101.D	Page Number	: 1
Operator	: TL	Vial Number	: 23
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-15	Sequence Line	: 11
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 02 Aug 19 06:12 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:43 AM		

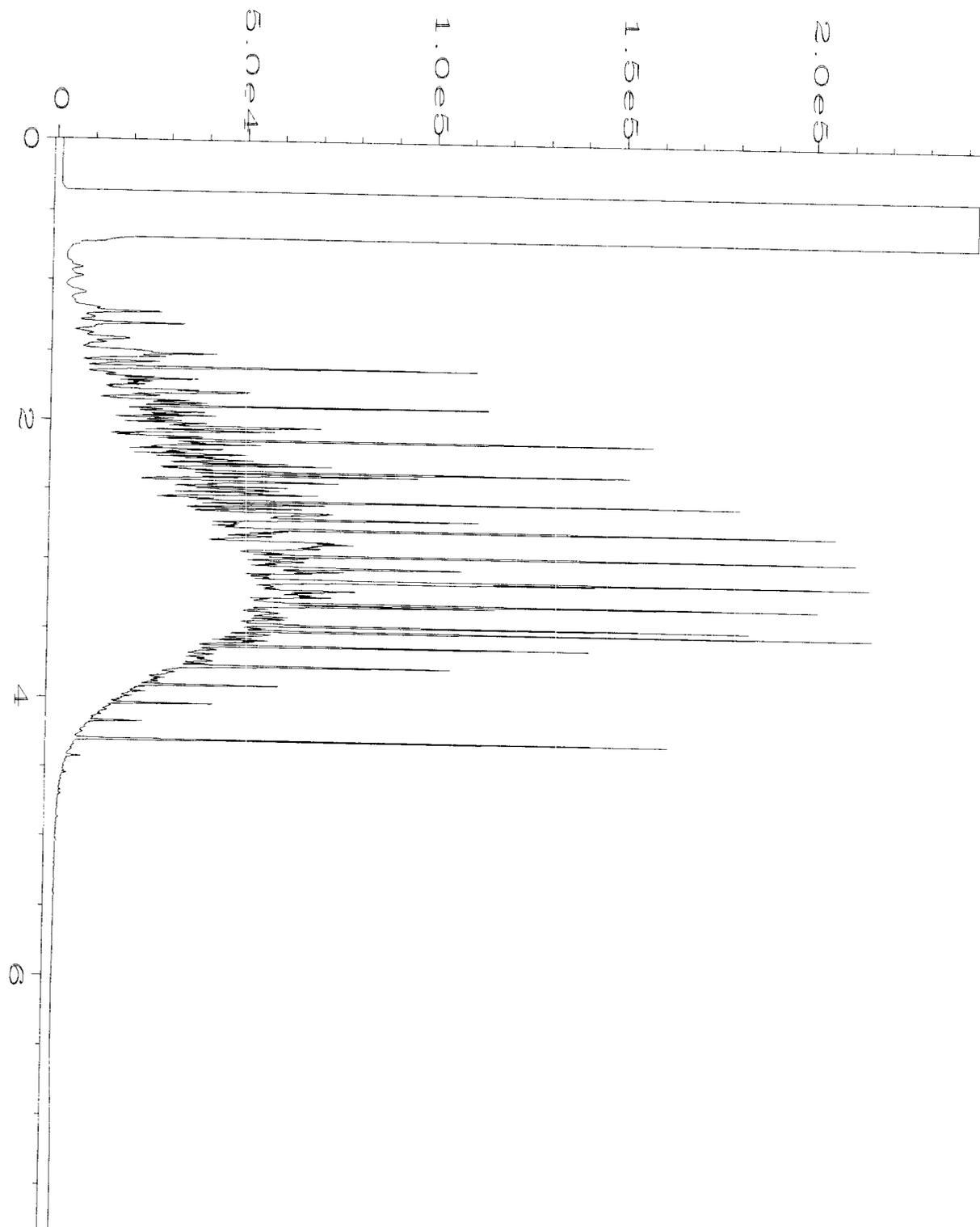


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Operator	: TL	Vial Number	: 24
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-16	Sequence Line	: 11
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 06:25 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:44 AM		



11

Data File Name	: C:\HPCHEM\4\DATA\08-02-19\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 09-1899 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 12:27 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:44 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-02-19\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 57-78B	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:07 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:45 AM		

908023

SAMPLE CHAIN OF CUSTODY

ME 08/01/19

WV5/AT6/805

Report To: ~~Andrew Jenkoffski~~

Company: Aspect

Address:

City, State, ZIP

Phone: 316.617.0499 Email: you@aspect.com

SAMPLERS (signature) [Signature]

PROJECT NAME: Alpha Cate

PO #: 180357

REMARKS

INVOICE TO

INVOICE TO

TURNAROUND TIME

Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	MTBE, EPB, EDC & naphthalene 8260	Total lead 6010	CVOCs	Notes
MW-16-073119	01A-H	07/31/19	0830	Water	8	X	X	X								
MW-18-073119	02A-K		0925		8	X	X	X								
MW-14-073119	03		1030		8	X	X	X								HL odor present
MW-13-073119	04		1240		11	X	X	X								
DOP-01-073119	05				11	X	X	X								
MW-17-073119	06A-H		0820		8	X	X	X								
MW-19-073119	07A-K		0910		11	X	X	X								
MW-7-073119	08A-H		1020		8	X	X	X								
MW-11-073119	09		1115		8	X	X	X								
MW-6-073119	10		1245		8	X	X	X								

SIGNATURE

Relinquished by: [Signature]

PRINT NAME: David Board

COMPANY: Aspect Consulting

DATE: 8/1/19 TIME: 1717

Received by: [Signature]

PRINT NAME: HODGEN CUNYEN

COMPANY: FBI

DATE: 8/1/19 TIME: 1717

Received by:

Samples received at: 40C

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 12, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on August 1, 2019 from the Aloha Cafe 180357, F&BI 908023 project. There are 51 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP0812R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 1, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 908023 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
908023 -01	MW-16-073119
908023 -02	MW-18-073119
908023 -03	MW-14-073119
908023 -04	MW-13-073119
908023 -05	Dup-01-073119
908023 -06	MW-17-073119
908023 -07	MW-19-073119
908023 -08	MW-7-073119
908023 -09	MW-11-073119
908023 -10	MW-6-073119
908023 -11	MW-12-080119
908023 -12	MW-2-080119
908023 -13	MW-10-080119
908023 -14	MW-9-080119
908023 -15	Rinse Blank-080119
908023 -16	MW-1-080119
908023 -17	Trip Blank

The NWTPH-Dx surrogate in sample Rinse Blank-080119 exceeded the acceptance criteria. No material was detected in the sample, therefore the results were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

Date Extracted: 08/06/19

Date Analyzed: 08/06/19, 08/07/19, 08/08/19, and 08/12/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-16-073119 908023-01	<100	109
MW-18-073119 908023-02	<100	110
MW-14-073119 908023-03	7,500	106
MW-13-073119 908023-04	1,400	92
Dup-01-073119 908023-05	9,700	107
MW-17-073119 908023-06 1/10	1,800	100
MW-19-073119 908023-07	<100	109
MW-7-073119 908023-08	<100	113
MW-11-073119 908023-09 1/20	13,000	98
MW-6-073119 908023-10	<100	115

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

Date Extracted: 08/06/19

Date Analyzed: 08/06/19, 08/07/19, 08/08/19, and 08/12/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-12-080119 908023-11	240	119
MW-2-080119 908023-12	1,600	114
MW-10-080119 908023-13 1/20	19,000	109
MW-9-080119 908023-14	<100	101
Rinse Blank-080119 908023-15	<100	91
MW-1-080119 908023-16 1/20	24,000	105
Trip Blank 908023-17	<100	95
Method Blank 09-1950 MB	<100	99
Method Blank 09-1903 MB	<100	116

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19  
 Date Received: 08/01/19  
 Project: Aloha Cafe 180357, F&BI 908023  
 Date Extracted: 08/02/19  
 Date Analyzed: 08/02/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
 FOR TOTAL PETROLEUM HYDROCARBONS AS  
 DIESEL AND MOTOR OIL  
 USING METHOD NWTPH-Dx  
 Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-16-073119 908023-01	84 x	<250	119
MW-18-073119 908023-02	55 x	<250	108
MW-14-073119 908023-03	1,200 x	330 x	121
MW-13-073119 908023-04	530 x	<250	131
Dup-01-073119 908023-05	1,100 x	270 x	116
MW-17-073119 908023-06	320 x	<250	113
MW-19-073119 908023-07	<50	<250	115
MW-7-073119 908023-08	83 x	<250	114
MW-11-073119 908023-09	1,100 x	<250	116
MW-6-073119 908023-10	68 x	<250	118
MW-12-080119 908023-11	310 x	<250	114

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

Date Extracted: 08/02/19

Date Analyzed: 08/02/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-2-080119 908023-12	790 x	<250	128
MW-10-080119 908023-13	1,900 x	260 x	125
MW-9-080119 908023-14	88 x	<250	122
Rinse Blank-080119 908023-15	<50	<250	142 vo
MW-1-080119 908023-16	2,100 x	1,000 x	126
Method Blank 09-1899 MB	<50	<250	101

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-16-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-01
Date Analyzed:	08/05/19	Data File:	908023-01.059
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-18-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-02
Date Analyzed:	08/05/19	Data File:	908023-02.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-14-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-03
Date Analyzed:	08/05/19	Data File:	908023-03.063
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-04
Date Analyzed:	08/05/19	Data File:	908023-04.064
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Dup-01-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-05
Date Analyzed:	08/05/19	Data File:	908023-05.065
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-17-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-06
Date Analyzed:	08/05/19	Data File:	908023-06.066
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-07
Date Analyzed:	08/05/19	Data File:	908023-07.069
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-7-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-08
Date Analyzed:	08/05/19	Data File:	908023-08.070
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-11-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-09
Date Analyzed:	08/05/19	Data File:	908023-09.071
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	3.49
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-10
Date Analyzed:	08/05/19	Data File:	908023-10.072
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-12-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-11
Date Analyzed:	08/05/19	Data File:	908023-11.073
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-12
Date Analyzed:	08/05/19	Data File:	908023-12.074
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-10-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-13
Date Analyzed:	08/05/19	Data File:	908023-13.075
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-9-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-14
Date Analyzed:	08/05/19	Data File:	908023-14.076
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Rinse Blank-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-15
Date Analyzed:	08/05/19	Data File:	908023-15.077
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	908023-16
Date Analyzed:	08/05/19	Data File:	908023-16.078
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/05/19	Lab ID:	I9-472 mb
Date Analyzed:	08/05/19	Data File:	I9-472 mb.057
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-16-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-01
Date Analyzed:	08/02/19	Data File:	080221.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-18-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-02
Date Analyzed:	08/02/19	Data File:	080222.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	1.0
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-14-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-03
Date Analyzed:	08/02/19	Data File:	080223.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.7
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	1,300 ve
Trichloroethene	<1
Toluene	32
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	130
m,p-Xylene	72
o-Xylene	18
Naphthalene	50

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-14-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-03 1/100
Date Analyzed:	08/05/19	Data File:	080543.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<20
Chloroethane	<100
1,1-Dichloroethene	<100
Methylene chloride	<500
Methyl t-butyl ether (MTBE)	<100
trans-1,2-Dichloroethene	<100
1,1-Dichloroethane	<100
cis-1,2-Dichloroethene	<100
1,2-Dichloroethane (EDC)	<100
1,1,1-Trichloroethane	<100
Benzene	2,400
Trichloroethene	<100
Toluene	<100
Tetrachloroethene	<100
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	120
m,p-Xylene	<200
o-Xylene	<100
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-13-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-04
Date Analyzed:	08/05/19	Data File:	080530.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	7.5
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Dup-01-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-05
Date Analyzed:	08/02/19	Data File:	080225.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.8
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	1,400 ve
Trichloroethene	<1
Toluene	45
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	190 ve
m,p-Xylene	120
o-Xylene	25
Naphthalene	77

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Dup-01-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-05 1/100
Date Analyzed:	08/05/19	Data File:	080544.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<20
Chloroethane	<100
1,1-Dichloroethene	<100
Methylene chloride	<500
Methyl t-butyl ether (MTBE)	<100
trans-1,2-Dichloroethene	<100
1,1-Dichloroethane	<100
cis-1,2-Dichloroethene	<100
1,2-Dichloroethane (EDC)	<100
1,1,1-Trichloroethane	<100
Benzene	3,500
Trichloroethene	<100
Toluene	<100
Tetrachloroethene	<100
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	170
m,p-Xylene	<200
o-Xylene	<100
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-17-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-06
Date Analyzed:	08/05/19	Data File:	080531.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-19-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-07
Date Analyzed:	08/05/19	Data File:	080532.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	1.0
Toluene	<1
Tetrachloroethene	17
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-08
Date Analyzed:	08/05/19	Data File:	080533.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-09
Date Analyzed:	08/02/19	Data File:	080229.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	320 ve
Toluene	1,600 ve
Ethylbenzene	450 ve
m,p-Xylene	1,300 ve
o-Xylene	460 ve
Naphthalene	42

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-09 1/100
Date Analyzed:	08/05/19	Data File:	080545.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	320
Toluene	1,800
Ethylbenzene	410
m,p-Xylene	1,000
o-Xylene	400
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6-073119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-10
Date Analyzed:	08/05/19	Data File:	080534.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-11
Date Analyzed:	08/05/19	Data File:	080535.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	0.59
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-12
Date Analyzed:	08/02/19	Data File:	080232.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	13
Toluene	2.2
Ethylbenzene	6.5
m,p-Xylene	5.6
o-Xylene	1.8
Naphthalene	33

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-13
Date Analyzed:	08/02/19	Data File:	080233.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	1,200 ve
Toluene	44
Ethylbenzene	680 ve
m,p-Xylene	1,300 ve
o-Xylene	2.7
Naphthalene	190 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-13 1/100
Date Analyzed:	08/05/19	Data File:	080546.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	94	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	2,400
Toluene	<100
Ethylbenzene	670
m,p-Xylene	1,100
o-Xylene	<100
Naphthalene	160

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-9-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-14
Date Analyzed:	08/05/19	Data File:	080536.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Rinse Blank-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-15
Date Analyzed:	08/07/19	Data File:	080738.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-16
Date Analyzed:	08/02/19	Data File:	080236.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	1,400 ve
Toluene	420 ve
Ethylbenzene	550 ve
m,p-Xylene	1,500 ve
o-Xylene	380 ve
Naphthalene	130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-080119	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-16 1/100
Date Analyzed:	08/05/19	Data File:	080547.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	4,200
Toluene	410
Ethylbenzene	520
m,p-Xylene	1,300
o-Xylene	350
Naphthalene	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Trip Blank	Client:	Aspect Consulting, LLC
Date Received:	08/01/19	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	908023-17
Date Analyzed:	08/05/19	Data File:	080537.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	104	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 908023
Date Extracted:	08/02/19	Lab ID:	09-1853 mb
Date Analyzed:	08/02/19	Data File:	080220.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 908067-06 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	95	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	5,000	97	88	61-133	10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 908023-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	68 b	68 b	75-125	0 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	94	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 908023-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance Criteria
				Recovery MS	
Vinyl chloride	ug/L (ppb)	50	<0.2	98	61-139
Chloroethane	ug/L (ppb)	50	<1	104	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	113	71-123
Methylene chloride	ug/L (ppb)	50	<5	88	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	96	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	99	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	96	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	104	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	103	75-121
Benzene	ug/L (ppb)	50	0.72	100	75-114
Trichloroethene	ug/L (ppb)	50	<1	100	73-122
Toluene	ug/L (ppb)	50	<1	102	73-117
Tetrachloroethene	ug/L (ppb)	50	<1	100	40-155
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	110	79-120
Ethylbenzene	ug/L (ppb)	50	<1	103	66-124
m,p-Xylene	ug/L (ppb)	100	<2	106	63-128
o-Xylene	ug/L (ppb)	50	<1	102	64-129
Naphthalene	ug/L (ppb)	50	<1	104	60-145

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/12/19

Date Received: 08/01/19

Project: Aloha Cafe 180357, F&BI 908023

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	96	100	70-128	4
Chloroethane	ug/L (ppb)	50	104	108	66-149	4
1,1-Dichloroethene	ug/L (ppb)	50	109	112	72-121	3
Methylene chloride	ug/L (ppb)	50	85	87	63-132	2
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	92	96	70-122	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	98	100	76-118	2
1,1-Dichloroethane	ug/L (ppb)	50	96	98	77-119	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	97	76-119	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	103	106	75-116	3
1,1,1-Trichloroethane	ug/L (ppb)	50	103	106	80-116	3
Benzene	ug/L (ppb)	50	96	100	75-116	4
Trichloroethene	ug/L (ppb)	50	100	103	72-119	3
Toluene	ug/L (ppb)	50	100	104	79-115	4
Tetrachloroethene	ug/L (ppb)	50	100	103	78-109	3
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	111	117	82-118	5
Ethylbenzene	ug/L (ppb)	50	102	106	83-111	4
m,p-Xylene	ug/L (ppb)	100	106	110	81-112	4
o-Xylene	ug/L (ppb)	50	101	104	81-117	3
Naphthalene	ug/L (ppb)	50	95	99	72-131	4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

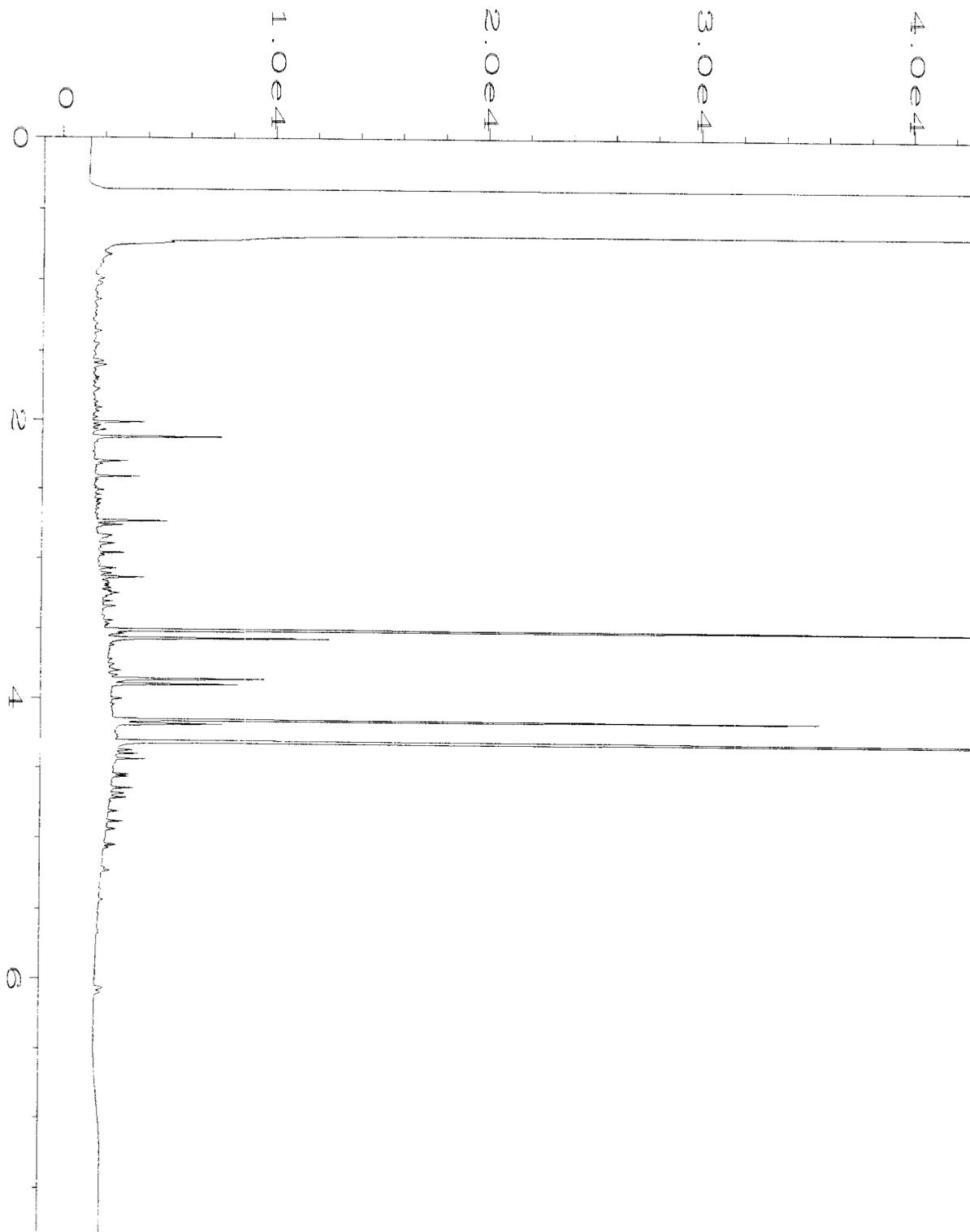
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

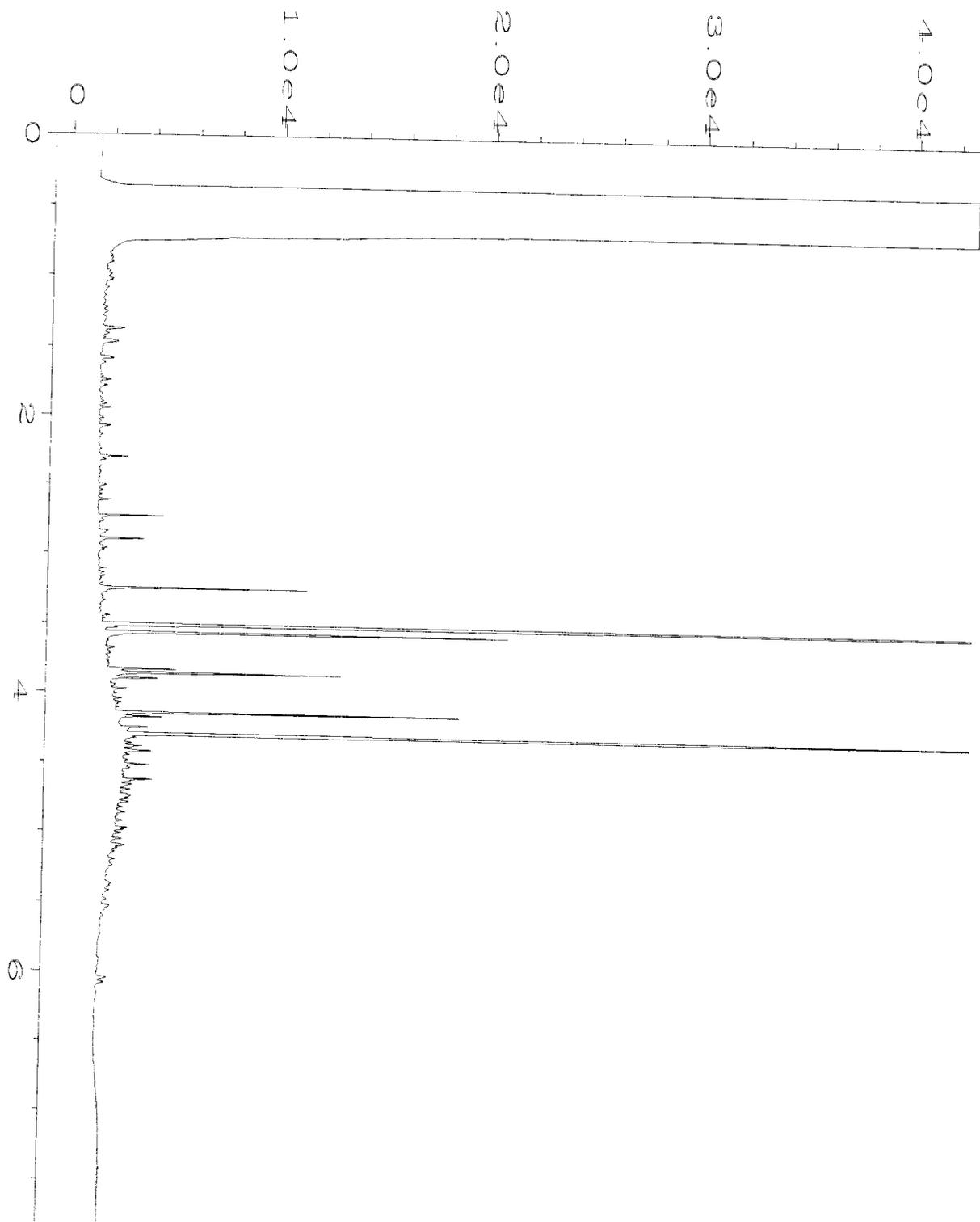
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

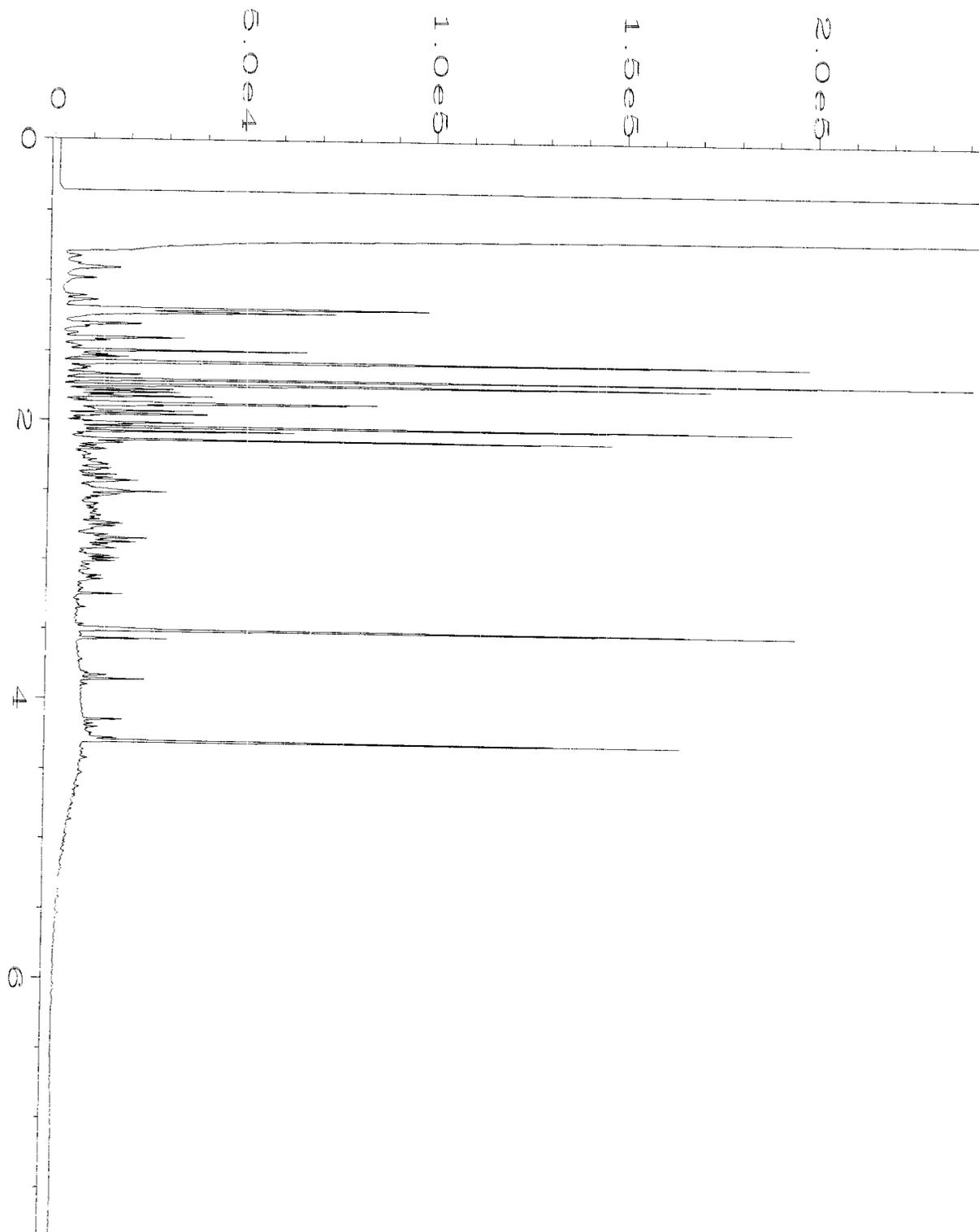
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



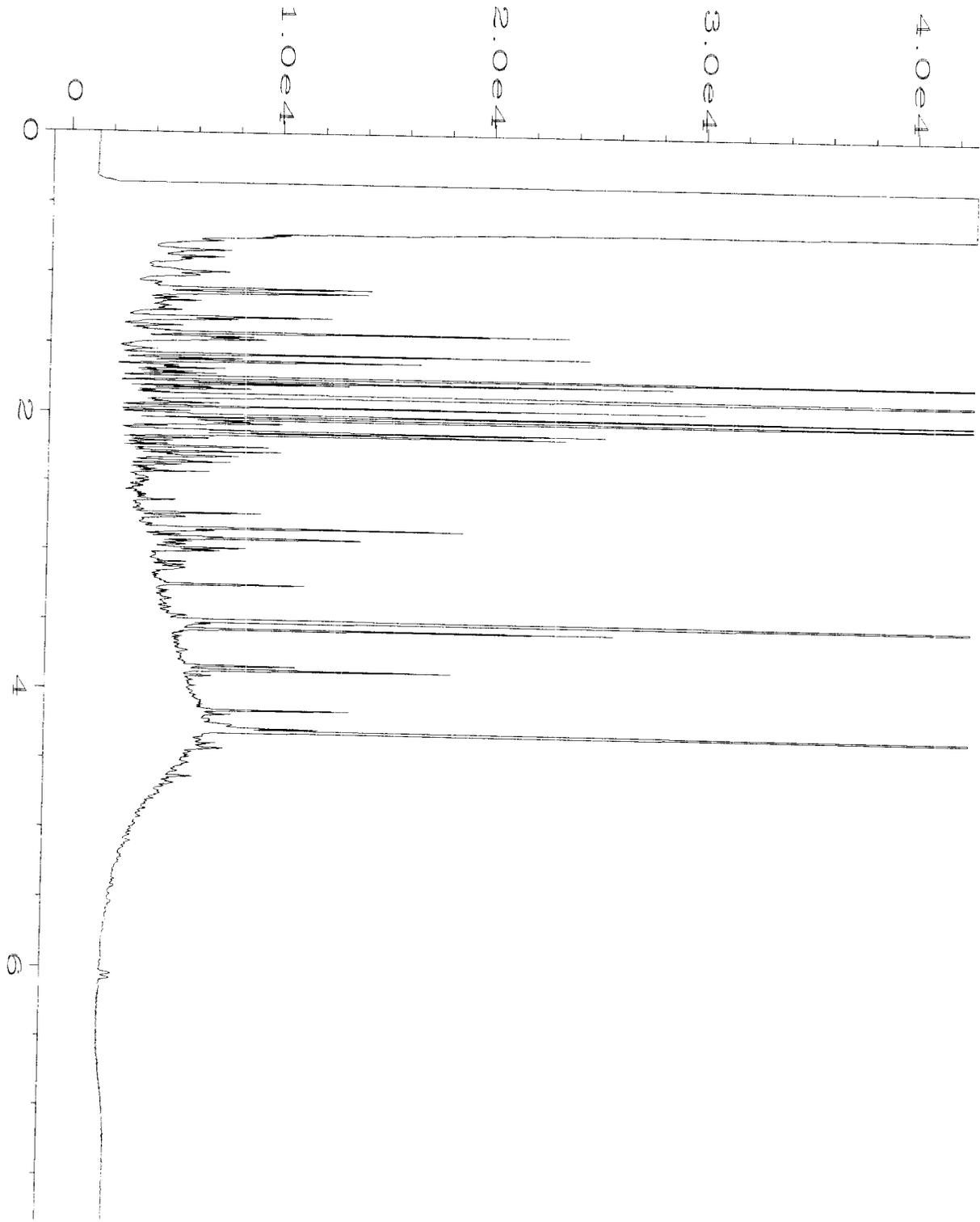
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Sample Name	: 908023-01	Sequence Line	: 3
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Acquired on	: 02 Aug 19 01:02 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:29 AM		



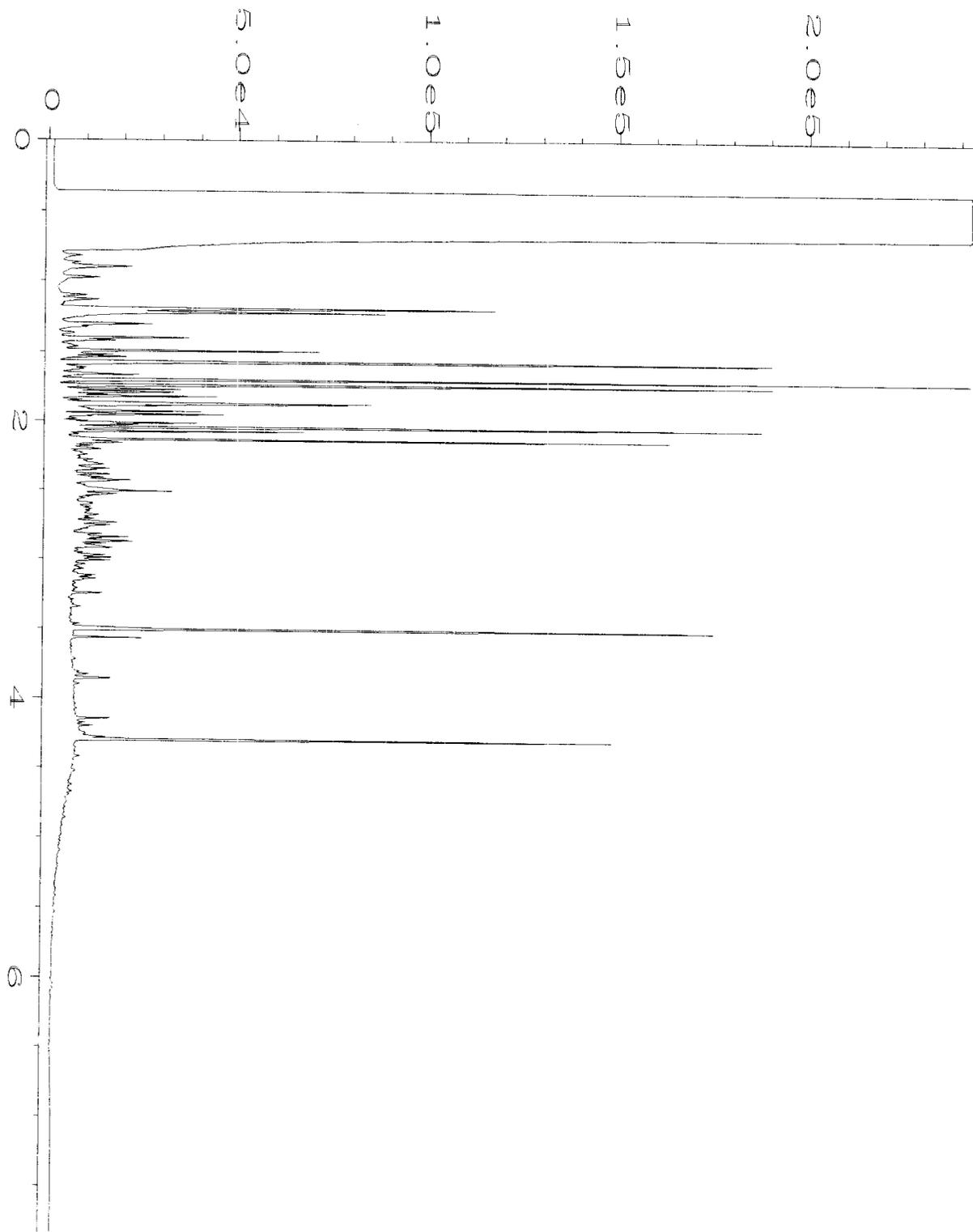
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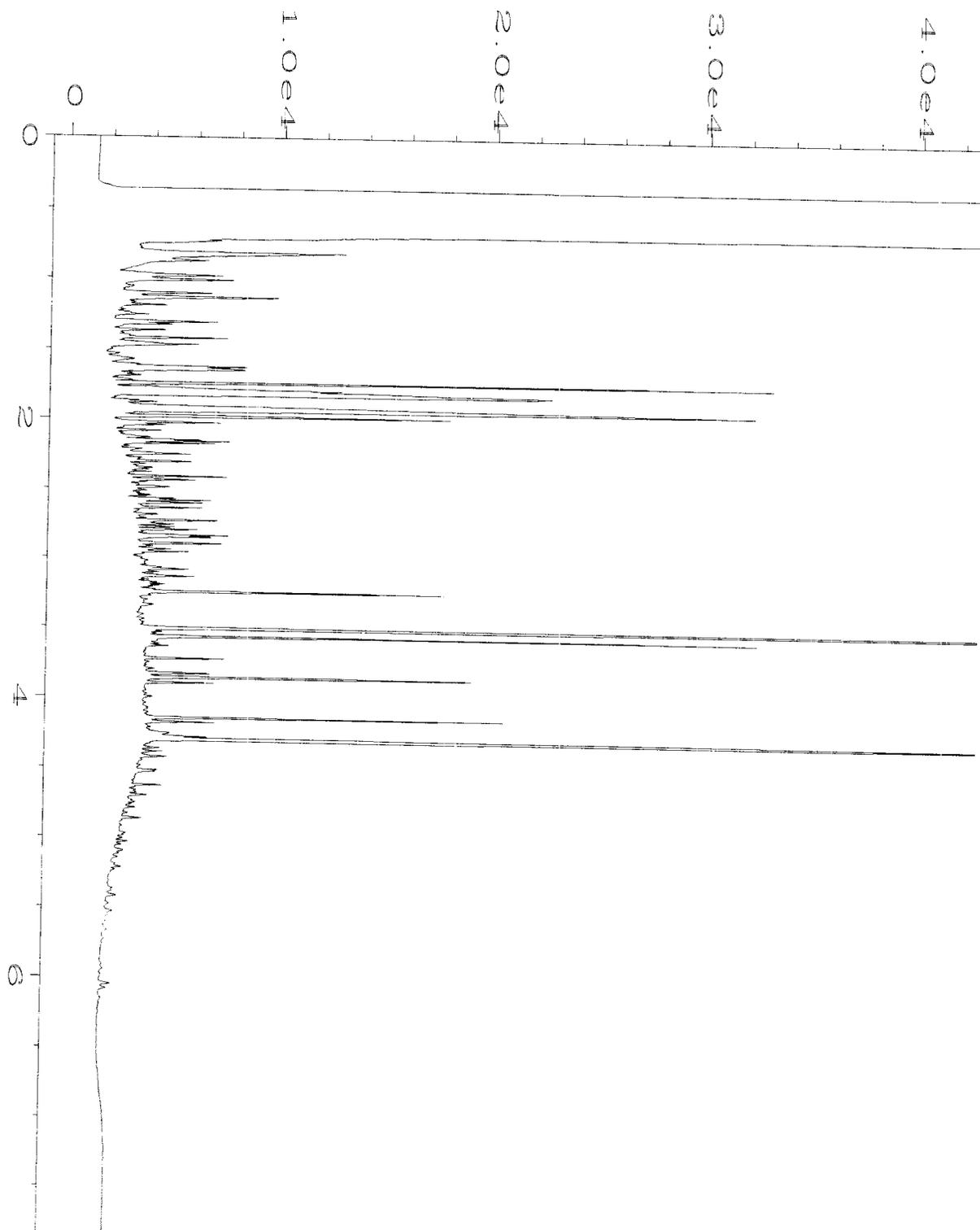
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Sample Name	: 908023-03	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 01:38 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:41 AM		



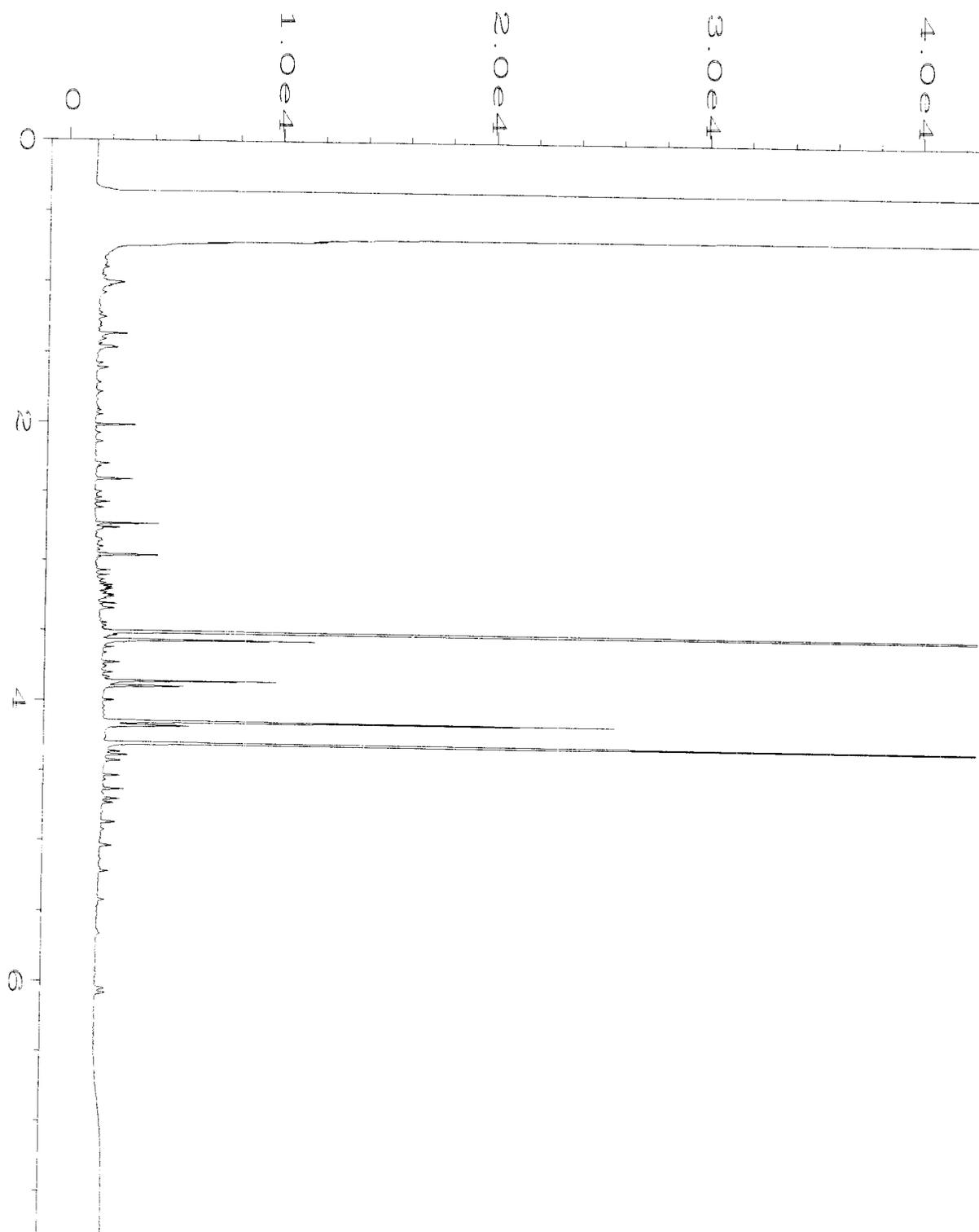
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Operator	: TL	Vial Number	: 12
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-04	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
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Report Created on:	05 Aug 19 09:30 AM		



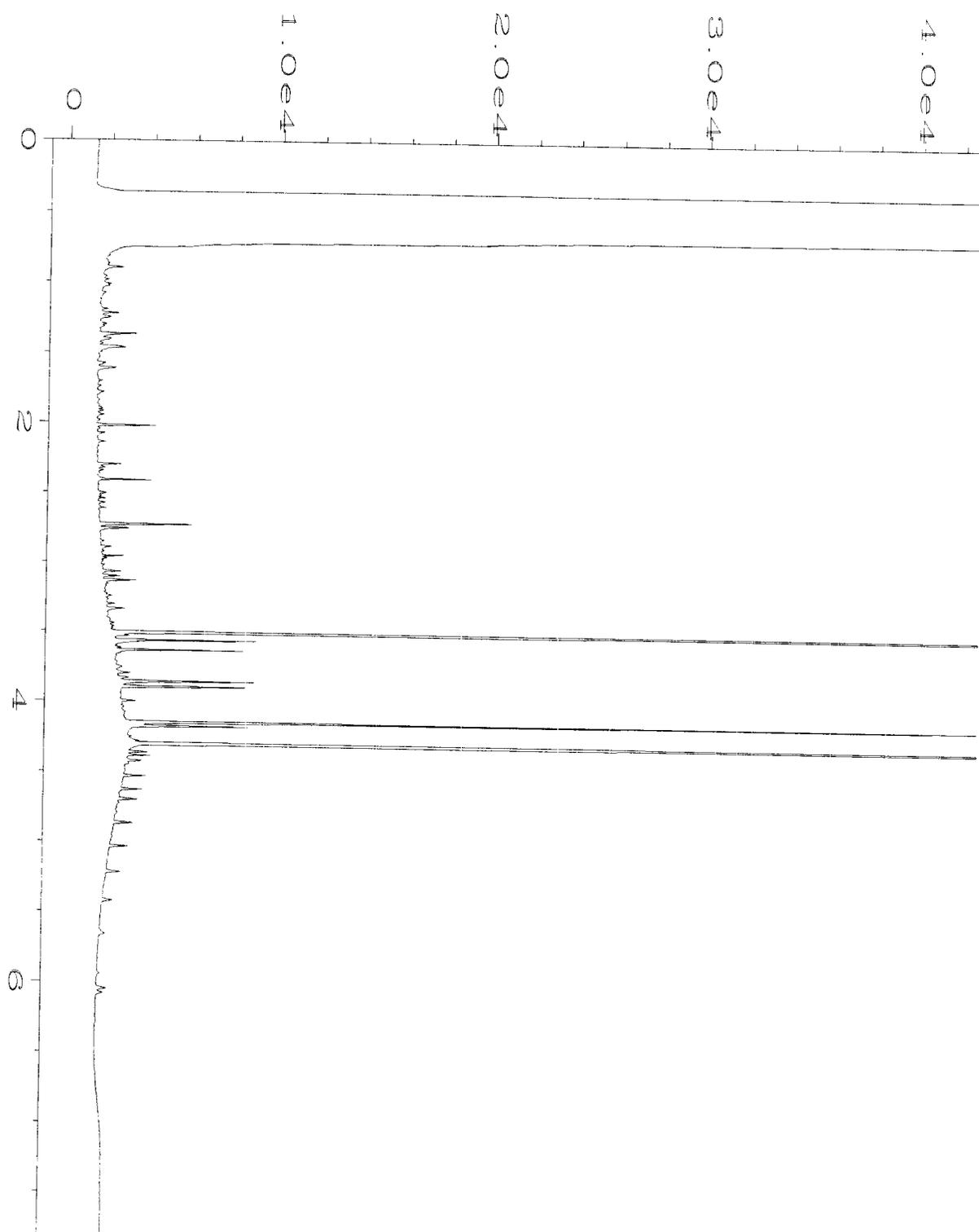
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Operator	: TL	Vial Number	: 13
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-05	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
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Report Created on:	05 Aug 19 09:41 AM		



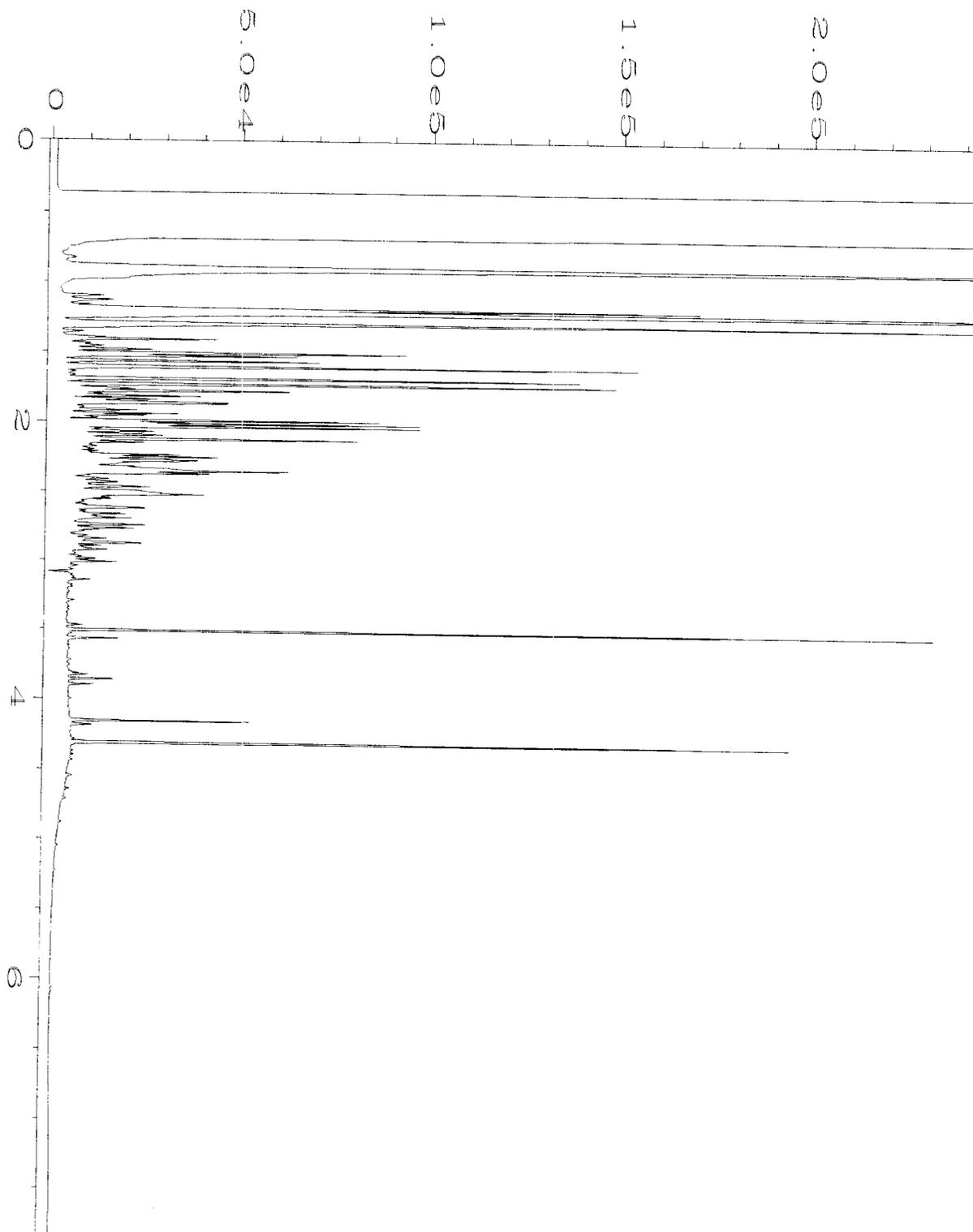
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-06	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:16 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:37 AM		



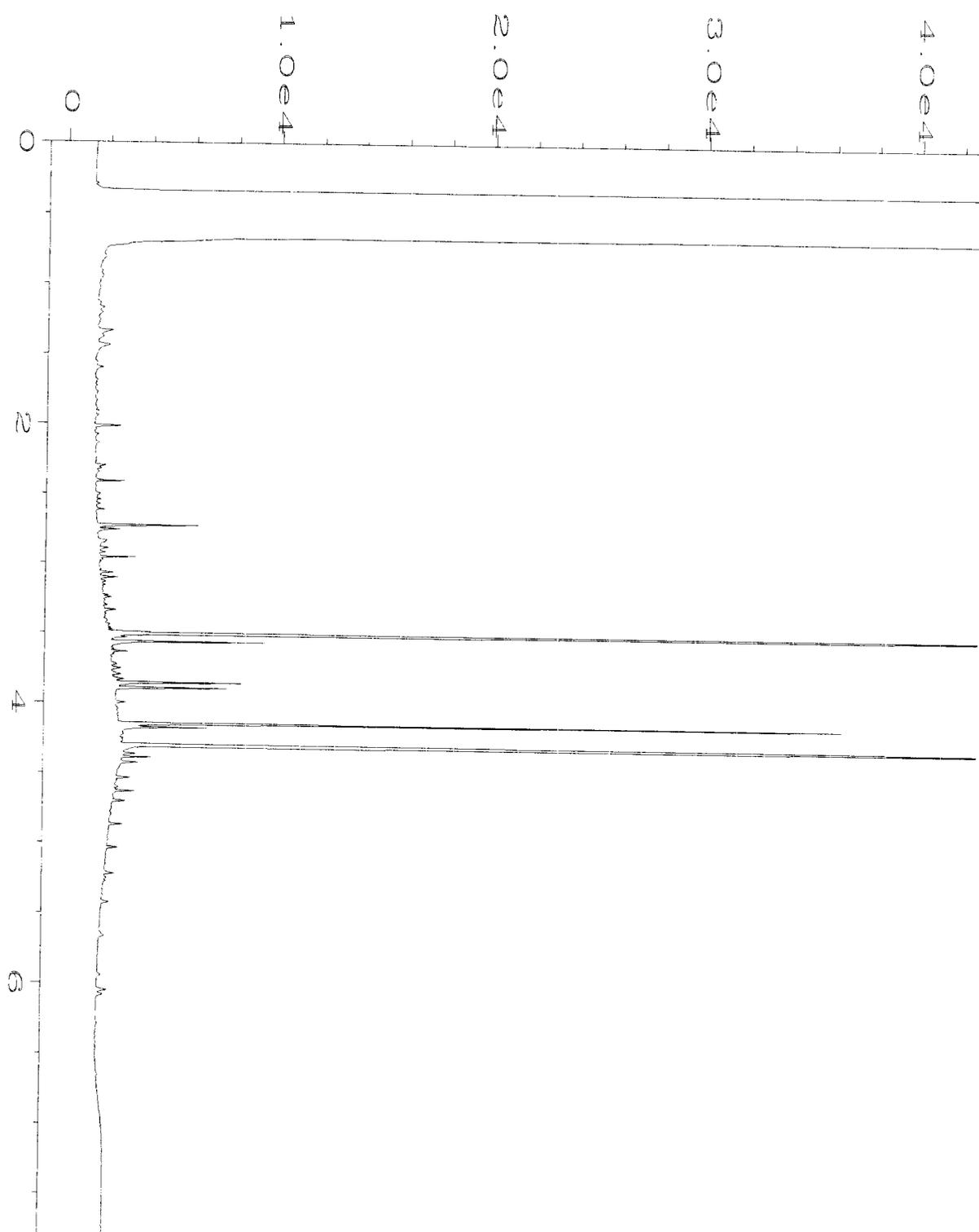
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Operator	: TL	Vial Number	: 15
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-07	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:29 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:37 AM		



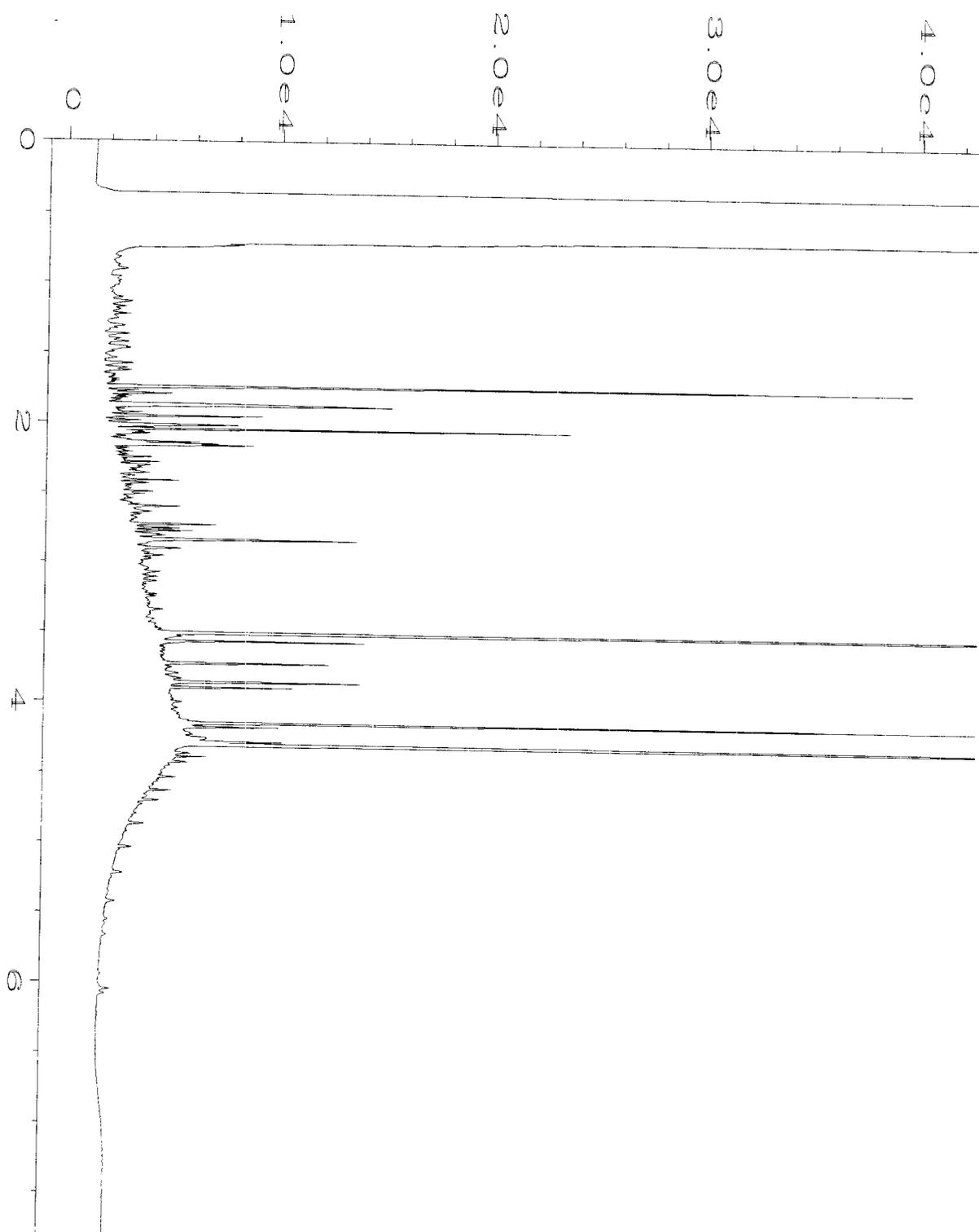
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\016F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 16
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-08	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 02:41 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:41 AM		



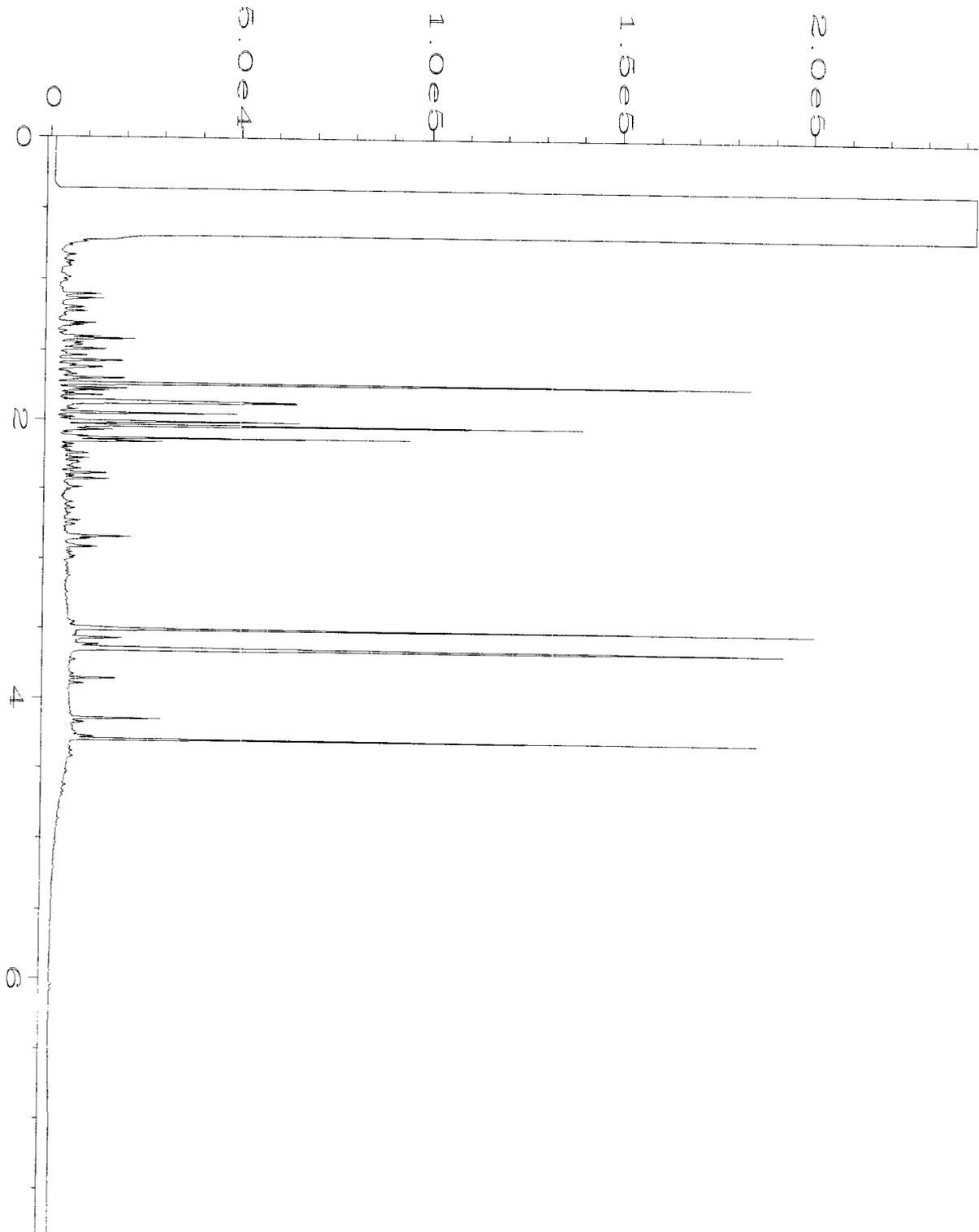
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\017F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 17
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-09	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:29 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:40 AM		



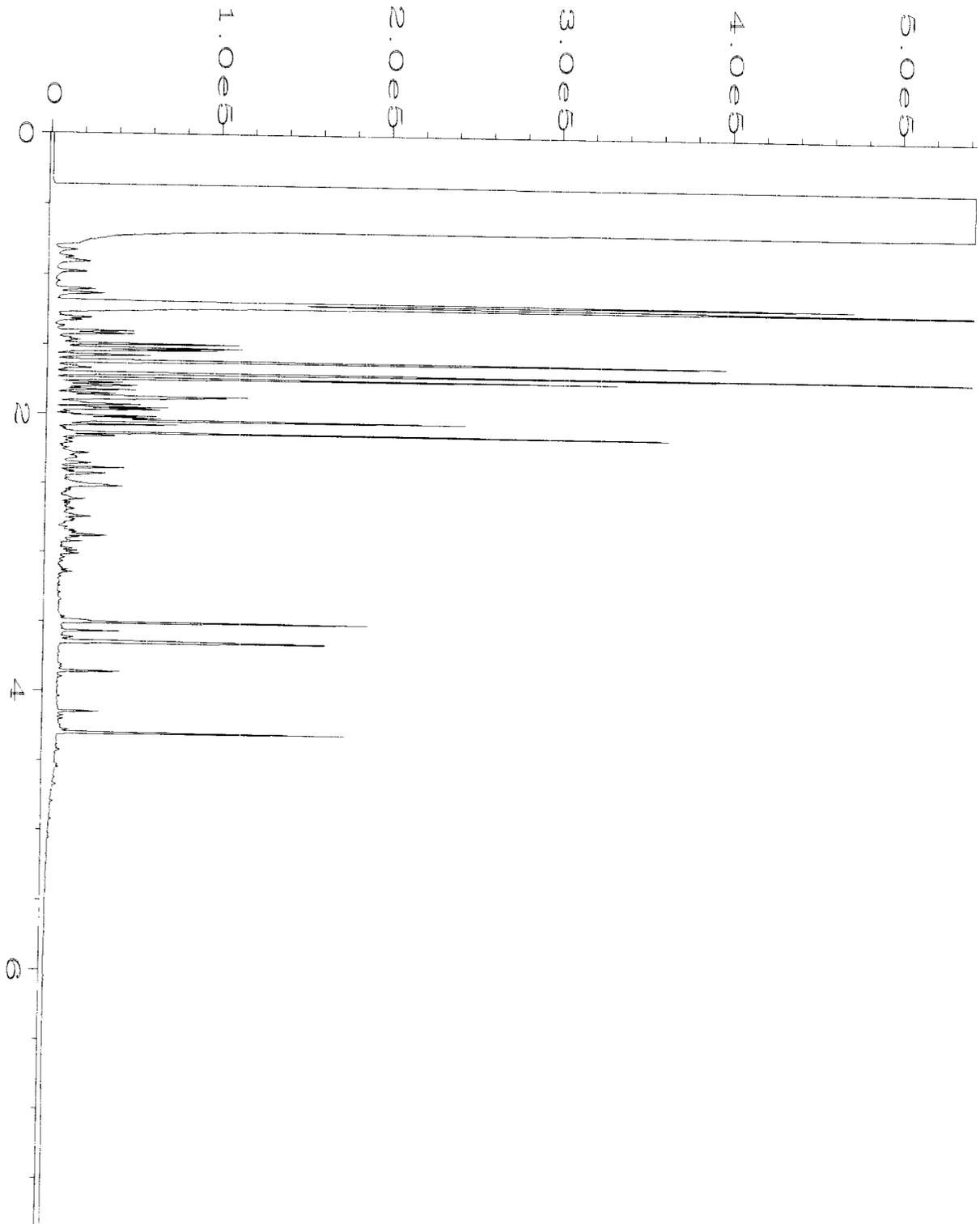
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\018F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 18
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-10	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:39 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



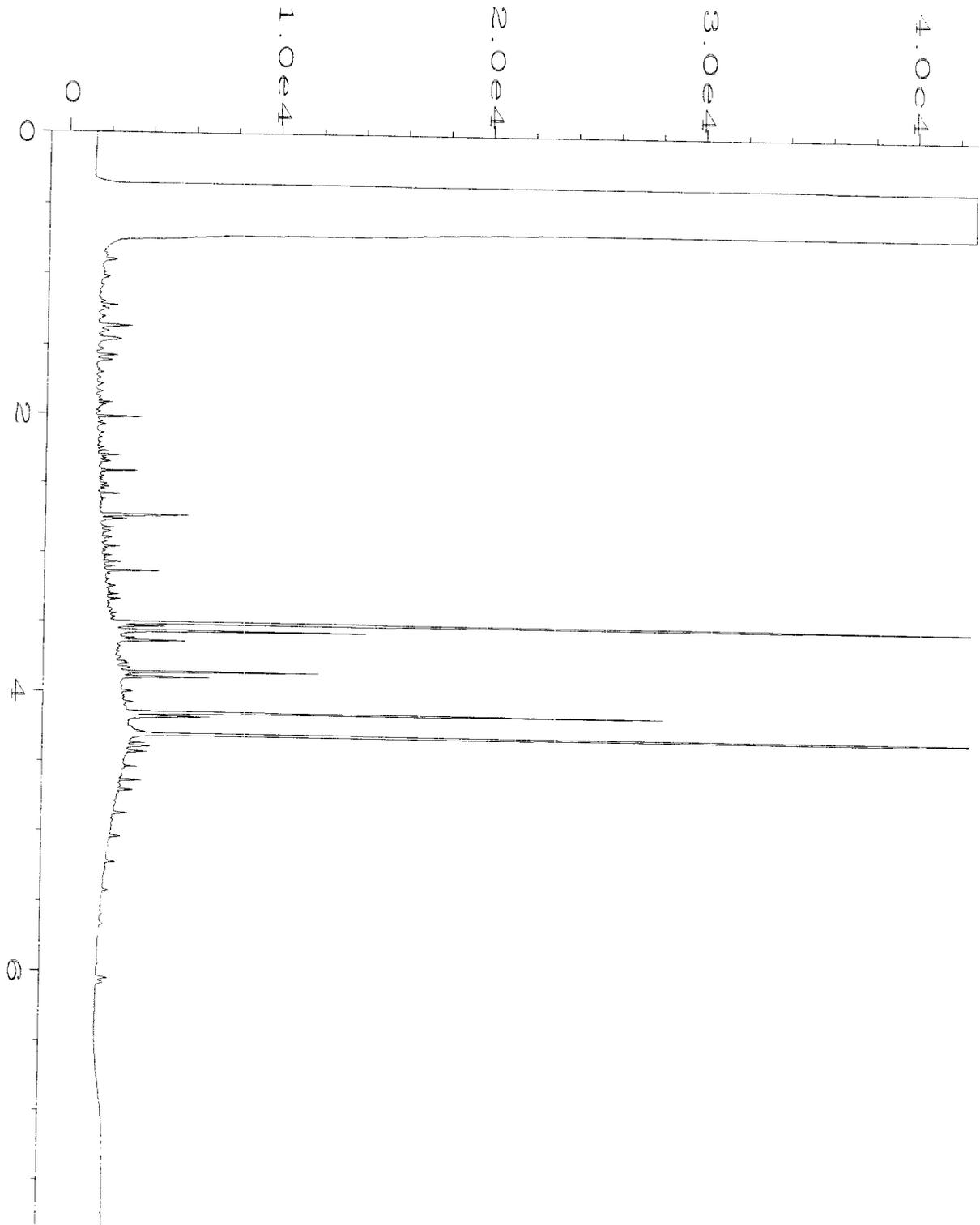
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\019F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 19
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-11	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:52 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



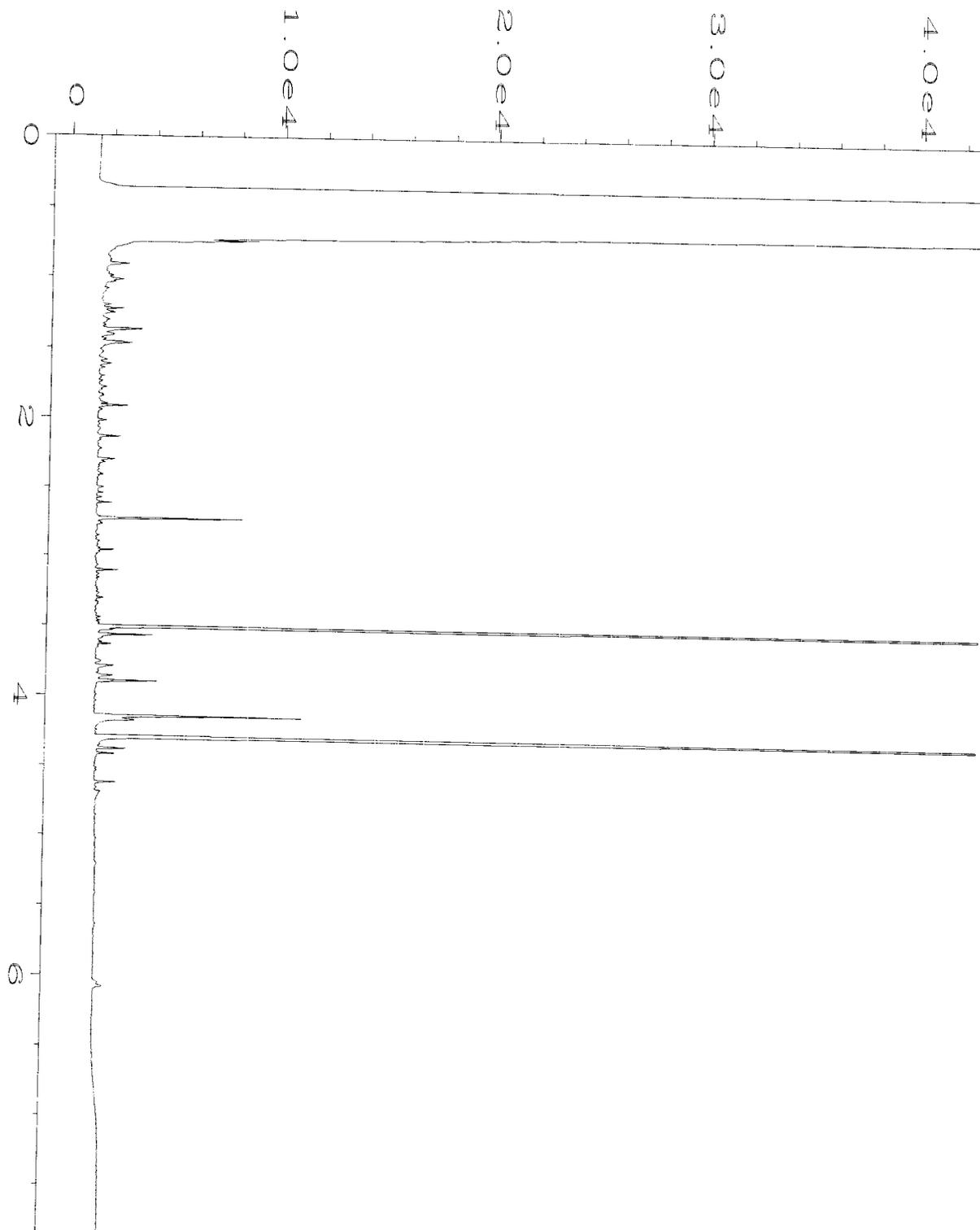
Data File Name	: C:\HPCHEM\4\DATA\08-02-19\020F0501.D	Page Number	: 1
Operator	: TL	Vial Number	: 20
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-12	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 04:05 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



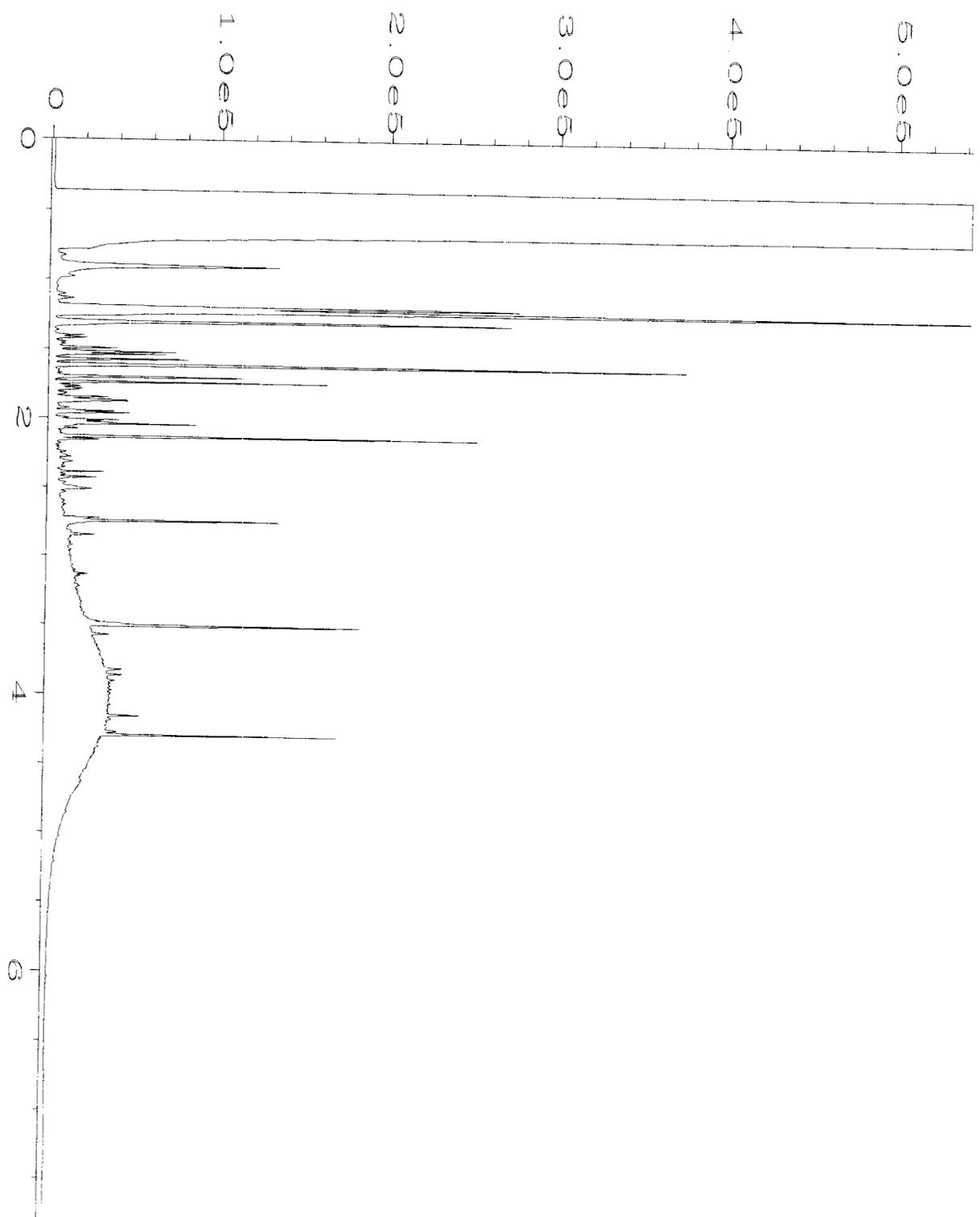
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Operator	: TL	Vial Number	: 21
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-13	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 04:17 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:42 AM		



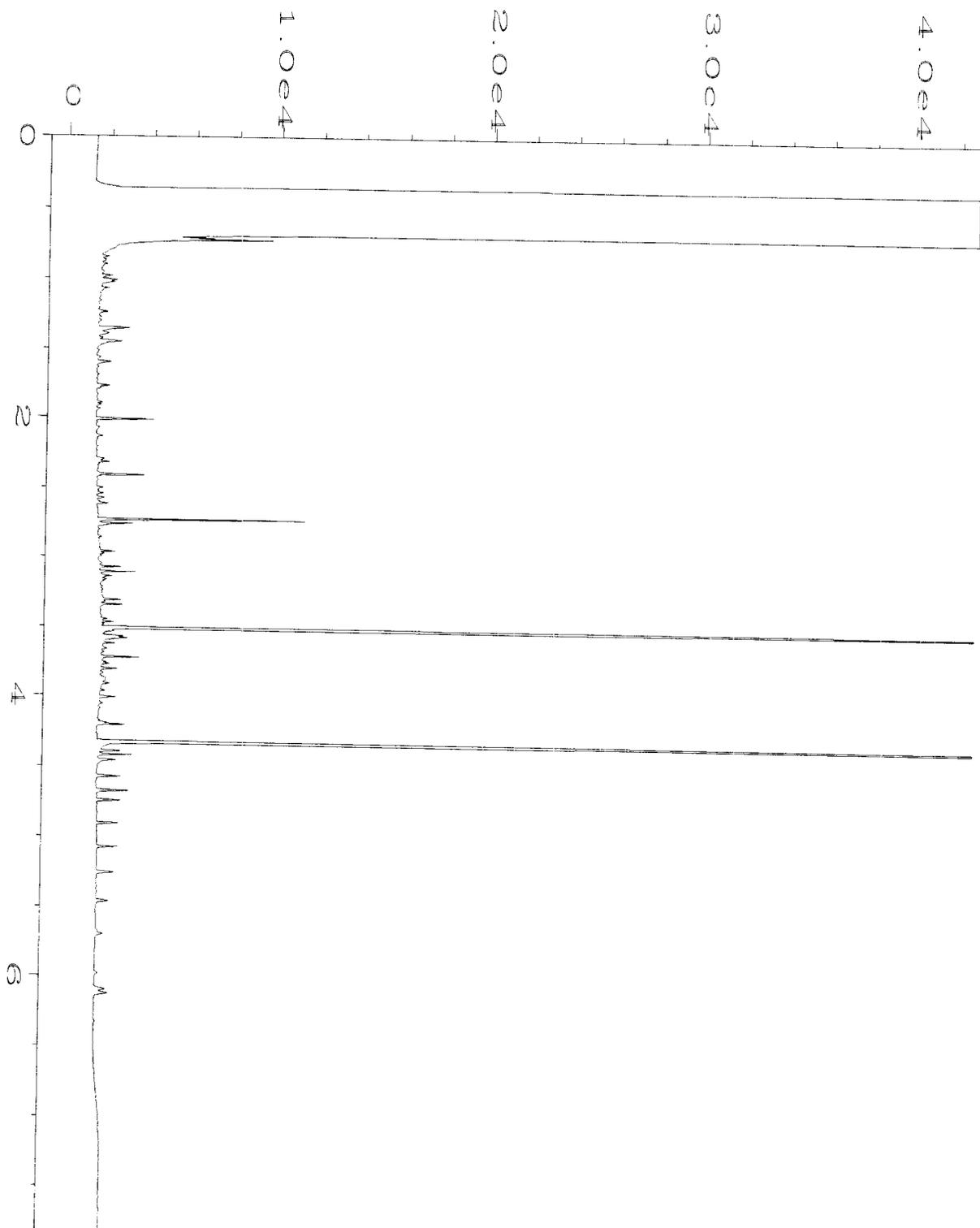
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Operator	: TL	Vial Number	: 22
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-14	Sequence Line	: 5
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 04:30 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:43 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-02-19\023F1101.D	Page Number	: 1
Operator	: TL	Vial Number	: 23
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-15	Sequence Line	: 11
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 02 Aug 19 06:12 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:43 AM		

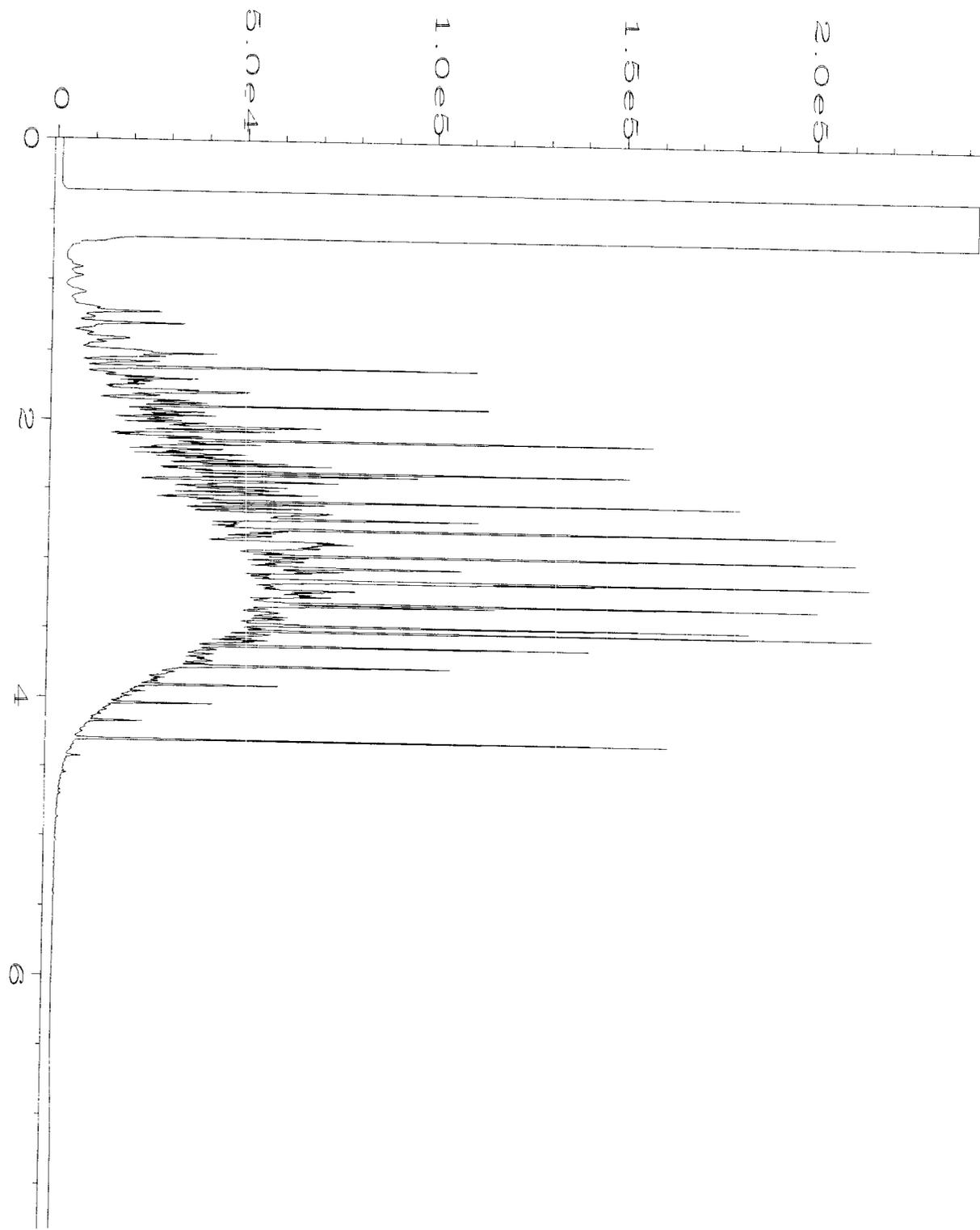


Data File Name	: C:\HPCHEM\4\DATA\08-02-19\024F1101.D	Page Number	: 1
Operator	: TL	Vial Number	: 24
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 908023-16	Sequence Line	: 11
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 06:25 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:44 AM		



18

Data File Name	: C:\HPCHEM\4\DATA\08-02-19\006F0301.D	Page Number	: 1
Operator	: TL	Vial Number	: 6
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 09-1899 mb	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 12:27 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:44 AM		



Data File Name	: C:\HPCHEM\4\DATA\08-02-19\005F0401.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 57-78B	Sequence Line	: 4
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 02 Aug 19 03:07 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	05 Aug 19 09:45 AM		

908023

SAMPLE CHAIN OF CUSTODY

ME 08/01/19

WV5/AT6/805

Report To: ~~Andrew Jenkoffski~~

Company: Aspect

Address:

City, State, ZIP

Phone: 316.617.0499 Email: you@aspect.com

SAMPLERS (signature) [Signature]

PROJECT NAME: Alpha Cafe

PO #: 180357

REMARKS: Alpha Cafe

INVOICE TO

INVOICE TO

TURNAROUND TIME

Standard Turnaround  
 RUSH  
Rush charges authorized by:

SAMPLE DISPOSAL  
 Dispose after 30 days  
 Archive Samples  
 Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	MTBE, EPB, EDC & naphthalene 8260	Total lead 6010	CVOCs			
MW-16-073119	01A-H	07/31/19	0830	Water	8	X	X	X										
MW-18-073119	02A-K		0925		8	X	X	X										
MW-14-073119	03		1030		8	X	X	X										HL odor present
MW-13-073119	04		1240		11	X	X	X										
DOP-01-073119	05				11	X	X	X										
MW-17-073119	06A-H		0820		8	X	X	X										
MW-19-073119	07A-K		0910		11	X	X	X										
MW-7-073119	08A-H		1020		8	X	X	X										
MW-11-073119	09		1115		8	X	X	X										
MW-6-073119	10		1245		8	X	X	X										

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Relinquished by:	<u>[Signature]</u>	<u>David Board</u>		<u>Aspect Consulting</u>		<u>8/1/19</u>	<u>1717</u>
Received by:	<u>[Signature]</u>	<u>Holtz N Conyell</u>		<u>FBI</u>		<u>8/1/19</u>	<u>1717</u>
Relinquished by:							
Received by:							

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

Samples received at 400



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

December 2, 2019

Andrew Yonkofski, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 20, 2019 from the Aloha Cafe 180357, F&BI 911310 project. There are 47 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
c: Data Aspect  
ASP1202R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 20, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha Cafe 180357, F&BI 911310 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
911310 -01	MW-1-112019
911310 -02	MW-2-112019
911310 -03	MW-6-112019
911310 -04	MW-7-112019
911310 -05	MW-9-112019
911310 -06	MW-10-112019
911310 -07	MW-11-112019
911310 -08	MW-12-112019
911310 -09	MW-13-112019
911310 -10	MW-14-112019
911310 -11	MW-16-112019
911310 -12	MW-17-112019
911310 -13	MW-18-112019
911310 -14	MW-19-112019
911310 -15	DUP-01-112019
911310 -16	Rinseblank-112019
911310 -17	Trip blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19  
Date Received: 11/20/19  
Project: Aloha Cafe 180357, F&BI 911310  
Date Extracted: 11/21/19  
Date Analyzed: 11/21/19 and 11/25/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-1-112019 911310-01 1/20	44,000	98
MW-2-112019 911310-02	4,600	86
MW-6-112019 911310-03	<100	86
MW-7-112019 911310-04	<100	89
MW-9-112019 911310-05	560	100
MW-10-112019 911310-06 1/20	21,000	97
MW-11-112019 911310-07 1/10	20,000	108
MW-12-112019 911310-08	540	96
MW-13-112019 911310-09	1,800	104
MW-14-112019 911310-10 1/10	11,000	94
MW-16-112019 911310-11	<100	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19  
Date Received: 11/20/19  
Project: Aloha Cafe 180357, F&BI 911310  
Date Extracted: 11/21/19  
Date Analyzed: 11/21/19 and 11/25/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
USING METHOD NWTPH-Gx**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-17-112019 911310-12	1,100	116
MW-18-112019 911310-13	1,300	96
MW-19-112019 911310-14	<100	86
DUP-01-112019 911310-15	<100	94
Rinseblank-112019 911310-16	<100	87
Trip blank 911310-17	<100	89
Method Blank 09-2735 MB	<100	81

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19  
 Date Received: 11/20/19  
 Project: Aloha Cafe 180357, F&BI 911310  
 Date Extracted: 11/21/19  
 Date Analyzed: 11/21/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
 FOR TOTAL PETROLEUM HYDROCARBONS AS  
 DIESEL AND MOTOR OIL  
 USING METHOD NWTPH-Dx**  
 Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-1-112019 911310-01	3,200 x	570 x	112
MW-2-112019 911310-02	2,200 x	260 x	125
MW-6-112019 911310-03	<50	<250	108
MW-7-112019 911310-04	<50	<250	122
MW-9-112019 911310-05	290 x	<250	121
MW-10-112019 911310-06	3,900 x	340 x	127
MW-11-112019 911310-07	2,400 x	310 x	125
MW-12-112019 911310-08	370 x	<250	126
MW-13-112019 911310-09	780 x	<250	117
MW-14-112019 911310-10	1,600 x	300 x	119
MW-16-112019 11310-11	<50	<250	120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19  
Date Received: 11/20/19  
Project: Aloha Cafe 180357, F&BI 911310  
Date Extracted: 11/21/19  
Date Analyzed: 11/21/19

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-D<sub>x</sub>**  
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 47-140)
MW-17-112019 911310-12	560 x	<250	124
MW-18-112019 911310-13	260 x	<250	134
MW-19-112019 911310-14	<50	<250	134
DUP-01-112019 911310-15	<50	<250	137
Rinseblank-112019 911310-16	<50	<250	117
Method Blank 09-2869 MB	<50	<250	124

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-01
Date Analyzed:	11/21/19	Data File:	911310-01.050
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-02
Date Analyzed:	11/21/19	Data File:	911310-02.053
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-03
Date Analyzed:	11/21/19	Data File:	911310-03.054
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-7-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-04
Date Analyzed:	11/21/19	Data File:	911310-04.055
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-9-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-05
Date Analyzed:	11/21/19	Data File:	911310-05.056
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-10-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-06
Date Analyzed:	11/21/19	Data File:	911310-06.057
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-11-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-07
Date Analyzed:	11/21/19	Data File:	911310-07.060
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	1.85
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-12-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-08
Date Analyzed:	11/21/19	Data File:	911310-08.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-09
Date Analyzed:	11/21/19	Data File:	911310-09.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-14-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-10
Date Analyzed:	11/21/19	Data File:	911310-10.063
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-16-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-11
Date Analyzed:	11/21/19	Data File:	911310-11.064
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	1.02
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-17-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-12
Date Analyzed:	11/21/19	Data File:	911310-12.065
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-18-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-13
Date Analyzed:	11/21/19	Data File:	911310-13.066
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-14
Date Analyzed:	11/21/19	Data File:	911310-14.067
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	DUP-01-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-15
Date Analyzed:	11/21/19	Data File:	911310-15.068
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Rinseblank-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	911310-16
Date Analyzed:	11/21/19	Data File:	911310-16.069
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/21/19	Lab ID:	I9-744 mb
Date Analyzed:	11/21/19	Data File:	I9-744 mb.048
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Lead	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-01 1/100
Date Analyzed:	11/26/19	Data File:	112545.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
Benzene	6,700
Toluene	1,500
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	860
m,p-Xylene	2,800
o-Xylene	880
Naphthalene	210

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-02
Date Analyzed:	11/25/19	Data File:	112534.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	30
Toluene	6.5
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	28
m,p-Xylene	19
o-Xylene	4.9
Naphthalene	150

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-03
Date Analyzed:	11/25/19	Data File:	112535.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-04
Date Analyzed:	11/25/19	Data File:	112536.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	2.7
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	1.6
m,p-Xylene	7.1
o-Xylene	1.7
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-9-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-05
Date Analyzed:	11/25/19	Data File:	112537.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	6.4
Toluene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	6.6
m,p-Xylene	<2
o-Xylene	3.3
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-06 1/100
Date Analyzed:	11/26/19	Data File:	112546.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
Benzene	2,800
Toluene	<100
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	1,000
m,p-Xylene	1,500
o-Xylene	<100
Naphthalene	270

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-07 1/100
Date Analyzed:	11/26/19	Data File:	112547.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
Benzene	270
Toluene	1,500
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	690
m,p-Xylene	2,100
o-Xylene	480
Naphthalene	130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-08
Date Analyzed:	11/25/19	Data File:	112538.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	1.1
Toluene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-13-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-09
Date Analyzed:	11/25/19	Data File:	112539.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	4.0
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-14-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-10 1/100
Date Analyzed:	11/26/19	Data File:	112548.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<20
Chloroethane	<100
1,1-Dichloroethene	<100
Methylene chloride	<500
Methyl t-butyl ether (MTBE)	<100
trans-1,2-Dichloroethene	<100
1,1-Dichloroethane	<100
cis-1,2-Dichloroethene	<100
1,2-Dichloroethane (EDC)	<100
1,1,1-Trichloroethane	<100
Benzene	2,700
Trichloroethene	<100
Toluene	<100
Tetrachloroethene	<100
1,2-Dibromoethane (EDB)	<100
Ethylbenzene	<100
m,p-Xylene	<200
o-Xylene	<100
Naphthalene	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-16-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-11
Date Analyzed:	11/25/19	Data File:	112540.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-17-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-12
Date Analyzed:	11/25/19	Data File:	112541.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	4.2
Toluene	2.8
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	4.2
o-Xylene	2.1
Naphthalene	1.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-18-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-13
Date Analyzed:	11/25/19	Data File:	112542.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	230 ve
Trichloroethene	<1
Toluene	8.2
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	14
m,p-Xylene	48
o-Xylene	17
Naphthalene	5.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-18-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-13 1/10
Date Analyzed:	11/26/19	Data File:	112626.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
Methyl t-butyl ether (MTBE)	<10
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	<10
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Benzene	240
Trichloroethene	<10
Toluene	<10
Tetrachloroethene	<10
1,2-Dibromoethane (EDB)	<10
Ethylbenzene	15
m,p-Xylene	52
o-Xylene	18
Naphthalene	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-19-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-14
Date Analyzed:	11/25/19	Data File:	112543.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	12
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	DUP-01-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-15
Date Analyzed:	11/26/19	Data File:	112625.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	15
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Rinseblank-112019	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-16
Date Analyzed:	11/26/19	Data File:	112544.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Trip blank	Client:	Aspect Consulting, LLC
Date Received:	11/20/19	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	911310-17
Date Analyzed:	11/25/19	Data File:	112533.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha Cafe 180357, F&BI 911310
Date Extracted:	11/25/19	Lab ID:	09-2843 mb
Date Analyzed:	11/25/19	Data File:	112512.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
Methyl t-butyl ether (MTBE)	<1
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Benzene	<0.35
Trichloroethene	<1
Toluene	<1
Tetrachloroethene	<1
1,2-Dibromoethane (EDB)	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19

Date Received: 11/20/19

Project: Aloha Cafe 180357, F&BI 911310

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TPH AS GASOLINE  
USING METHOD NWTPH-G<sub>x</sub>**

Laboratory Code: 911310-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	102	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19

Date Received: 11/20/19

Project: Aloha Cafe 180357, F&BI 911310

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	96	61-133	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19

Date Received: 11/20/19

Project: Aloha Cafe 180357, F&BI 911310

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 911310-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	84	89	75-125	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	93	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19

Date Received: 11/20/19

Project: Aloha Cafe 180357, F&BI 911310

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: 911310-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	90	36-166
Chloroethane	ug/L (ppb)	50	<1	102	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	107	60-136
Methylene chloride	ug/L (ppb)	50	<5	101	67-132
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	103	74-127
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	100	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	103	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	101	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	102	60-146
Benzene	ug/L (ppb)	50	30	101 b	76-125
Trichloroethene	ug/L (ppb)	50	<1	95	66-135
Toluene	ug/L (ppb)	50	6.5	104	76-122
Tetrachloroethene	ug/L (ppb)	50	<1	105	10-226
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	98	69-134
Ethylbenzene	ug/L (ppb)	50	28	104 b	69-135
m,p-Xylene	ug/L (ppb)	100	19	104	69-135
o-Xylene	ug/L (ppb)	50	4.9	104	60-140
Naphthalene	ug/L (ppb)	50	150	126 b	44-164

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/02/19

Date Received: 11/20/19

Project: Aloha Cafe 180357, F&BI 911310

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260C**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	93	83	50-154	11
Chloroethane	ug/L (ppb)	50	104	92	58-146	12
1,1-Dichloroethene	ug/L (ppb)	50	103	93	67-136	10
Methylene chloride	ug/L (ppb)	50	99	91	39-148	8
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	103	92	64-147	11
trans-1,2-Dichloroethene	ug/L (ppb)	50	98	88	68-128	11
1,1-Dichloroethane	ug/L (ppb)	50	99	90	79-121	10
cis-1,2-Dichloroethene	ug/L (ppb)	50	99	90	80-123	10
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	96	88	73-132	9
1,1,1-Trichloroethane	ug/L (ppb)	50	102	92	81-125	10
Benzene	ug/L (ppb)	50	95	87	69-134	9
Trichloroethene	ug/L (ppb)	50	92	84	79-113	9
Toluene	ug/L (ppb)	50	107	96	72-122	11
Tetrachloroethene	ug/L (ppb)	50	109	99	76-121	10
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	102	94	82-115	8
Ethylbenzene	ug/L (ppb)	50	107	97	77-124	10
m,p-Xylene	ug/L (ppb)	100	107	96	81-112	11
o-Xylene	ug/L (ppb)	50	109	98	81-121	11
Naphthalene	ug/L (ppb)	50	105	95	64-133	10

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

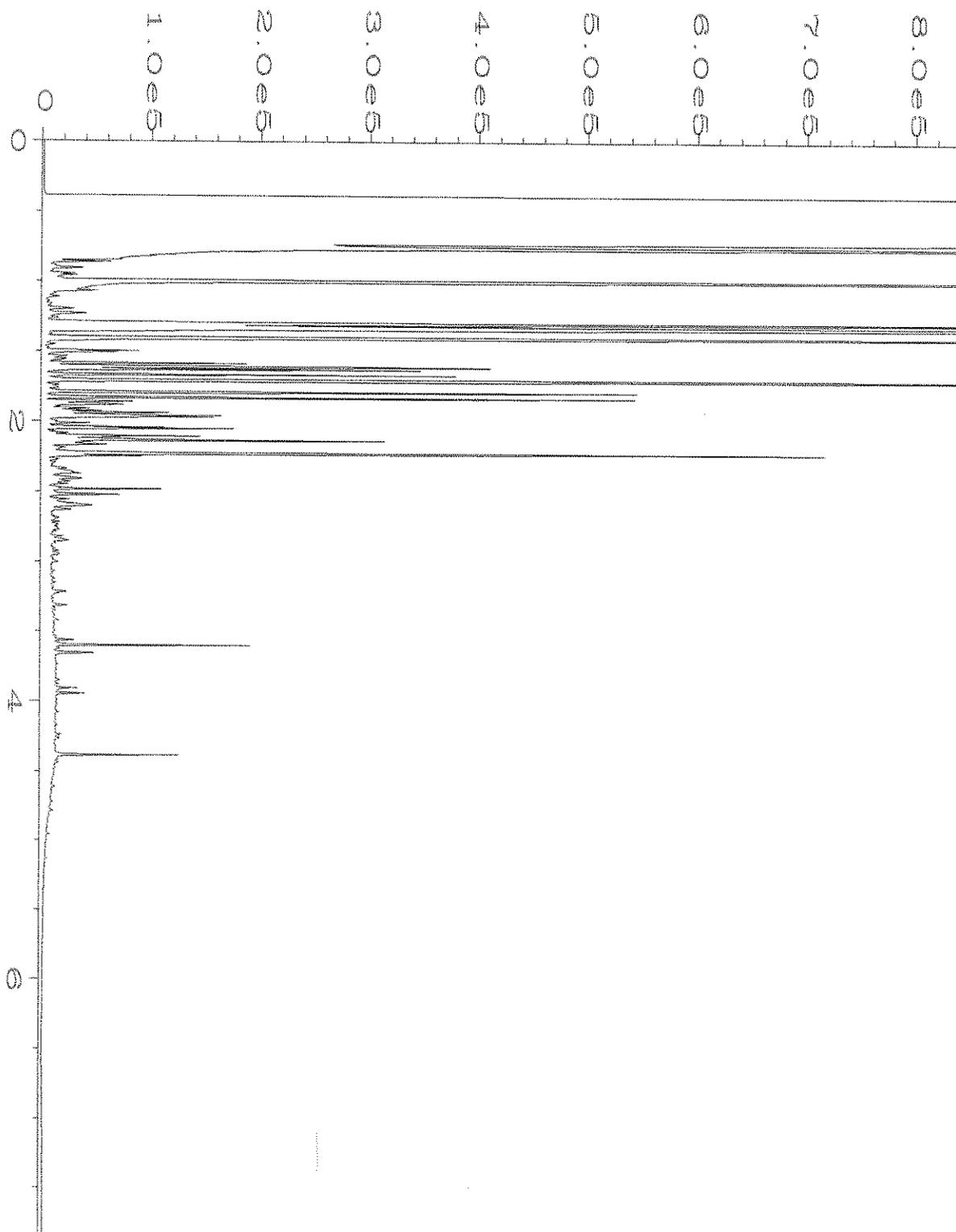
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

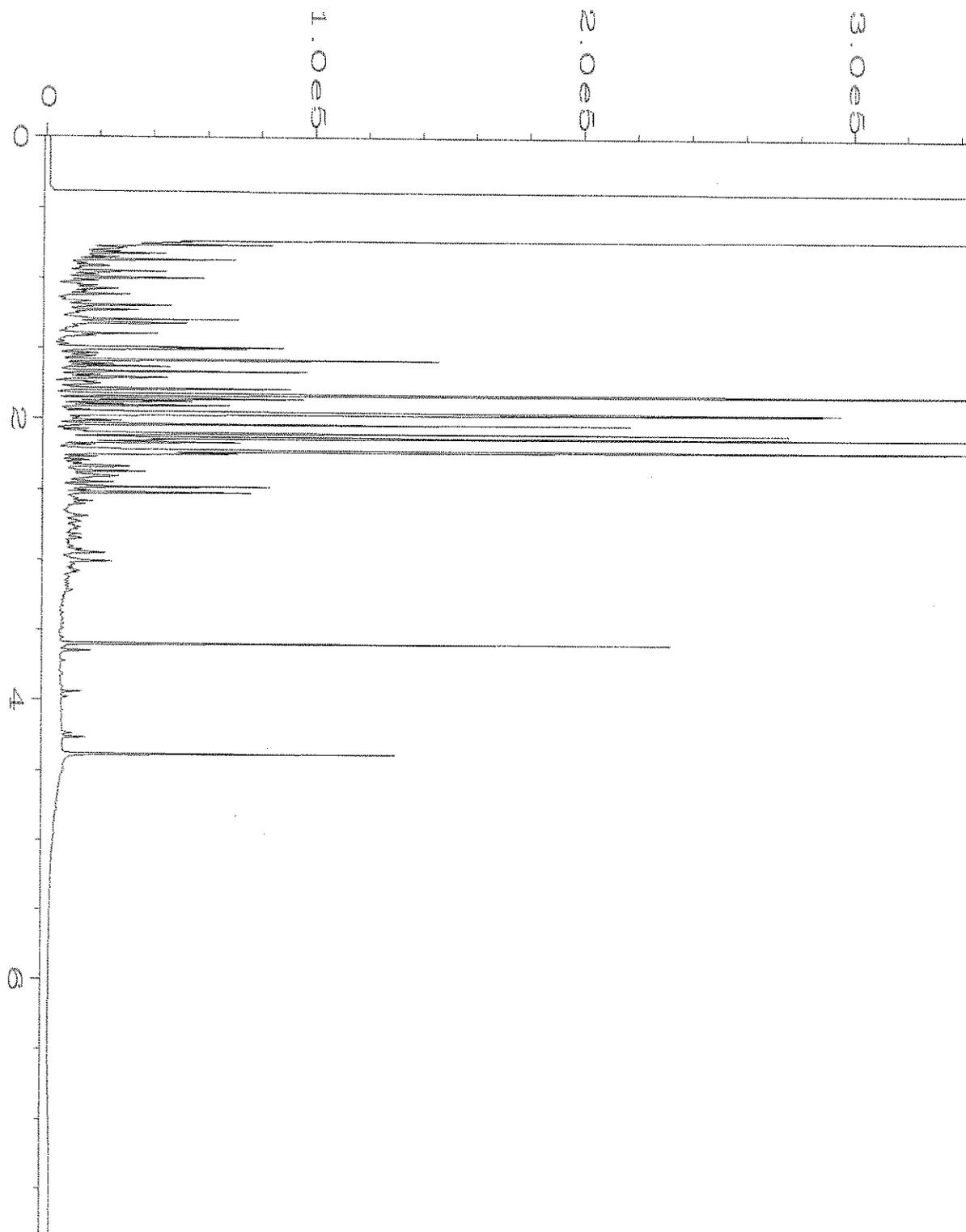
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

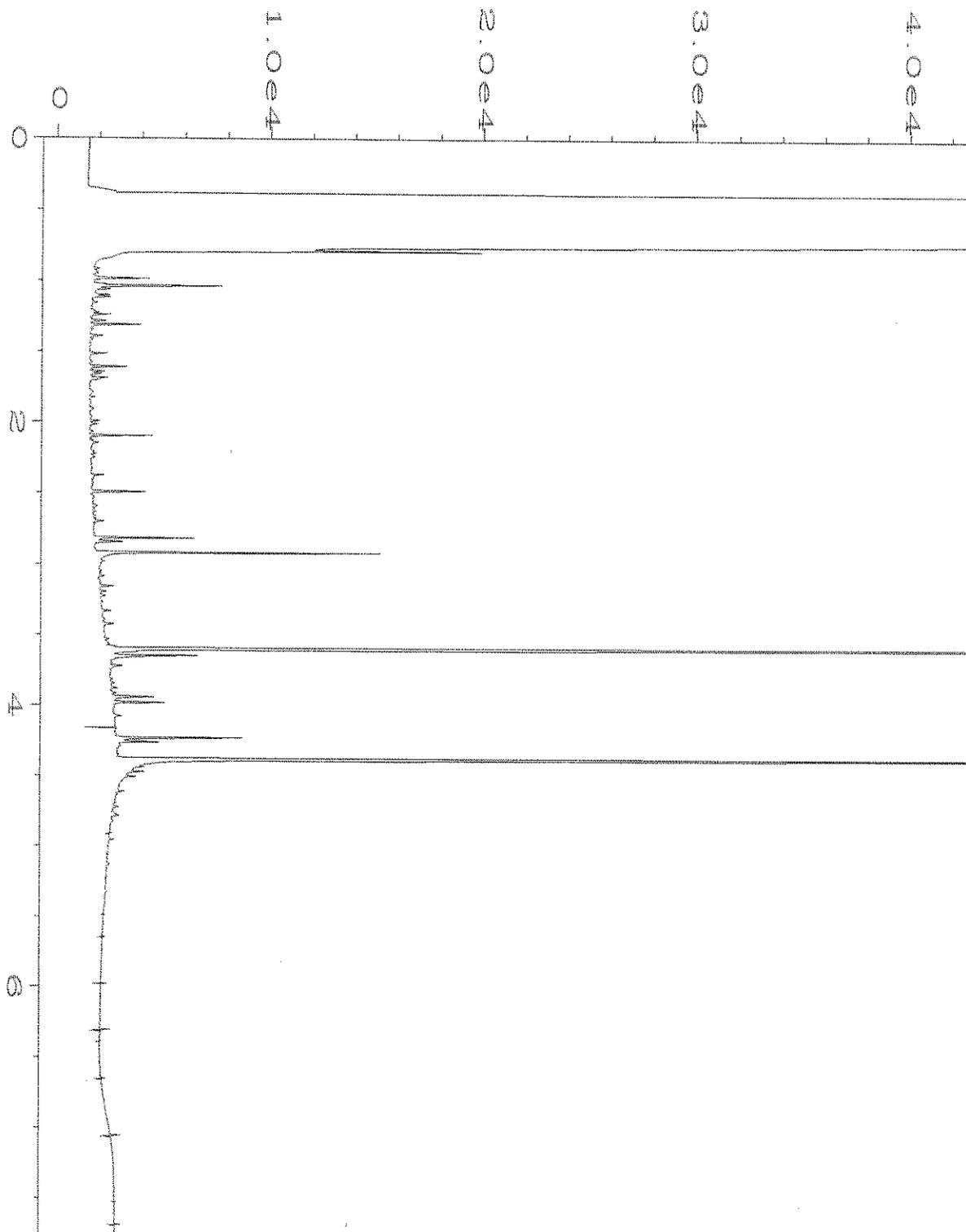
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



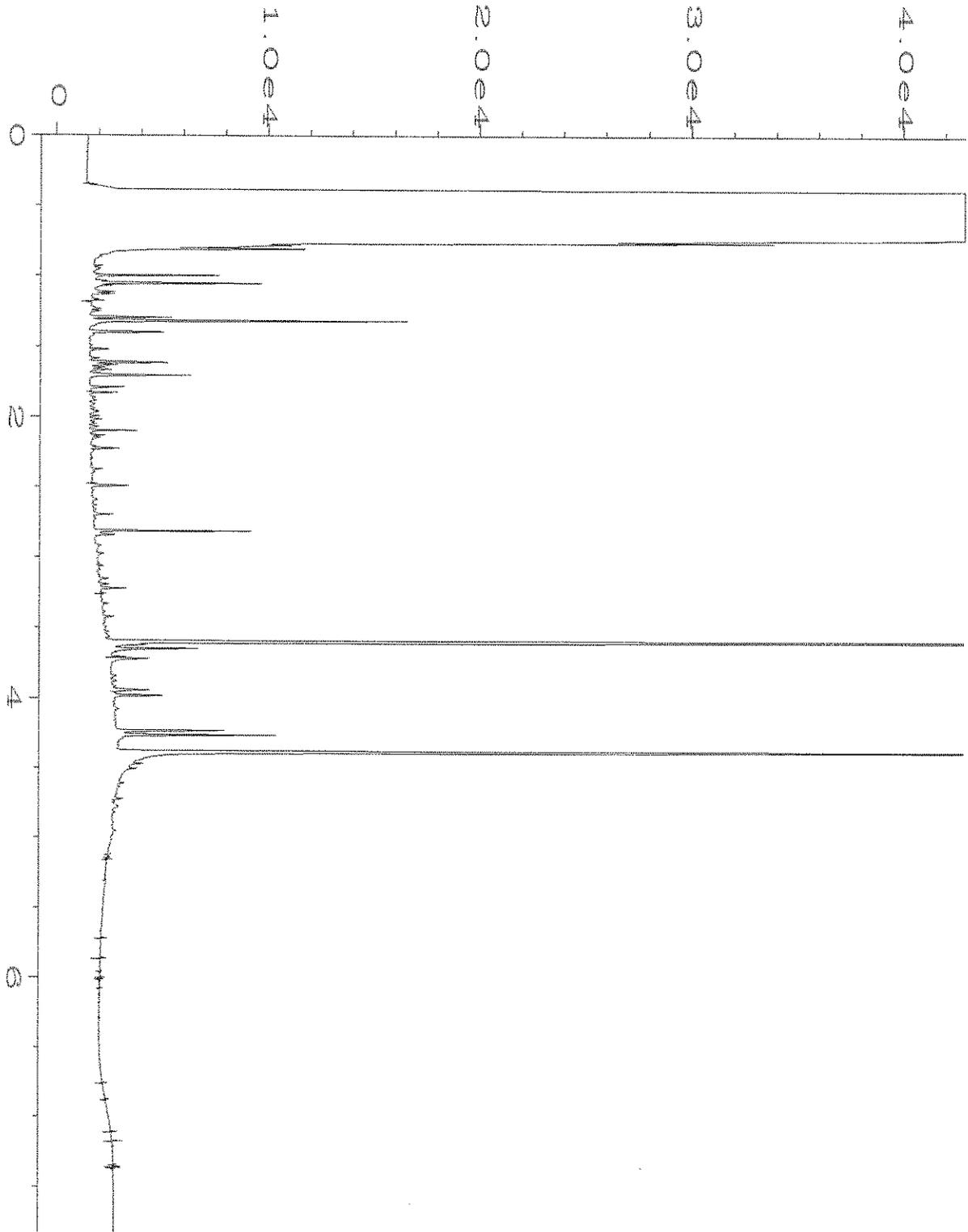
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Sample Name	: 911310-01	Sequence Line	: 12
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Report Created on:	22 Nov 19 09:25 AM		



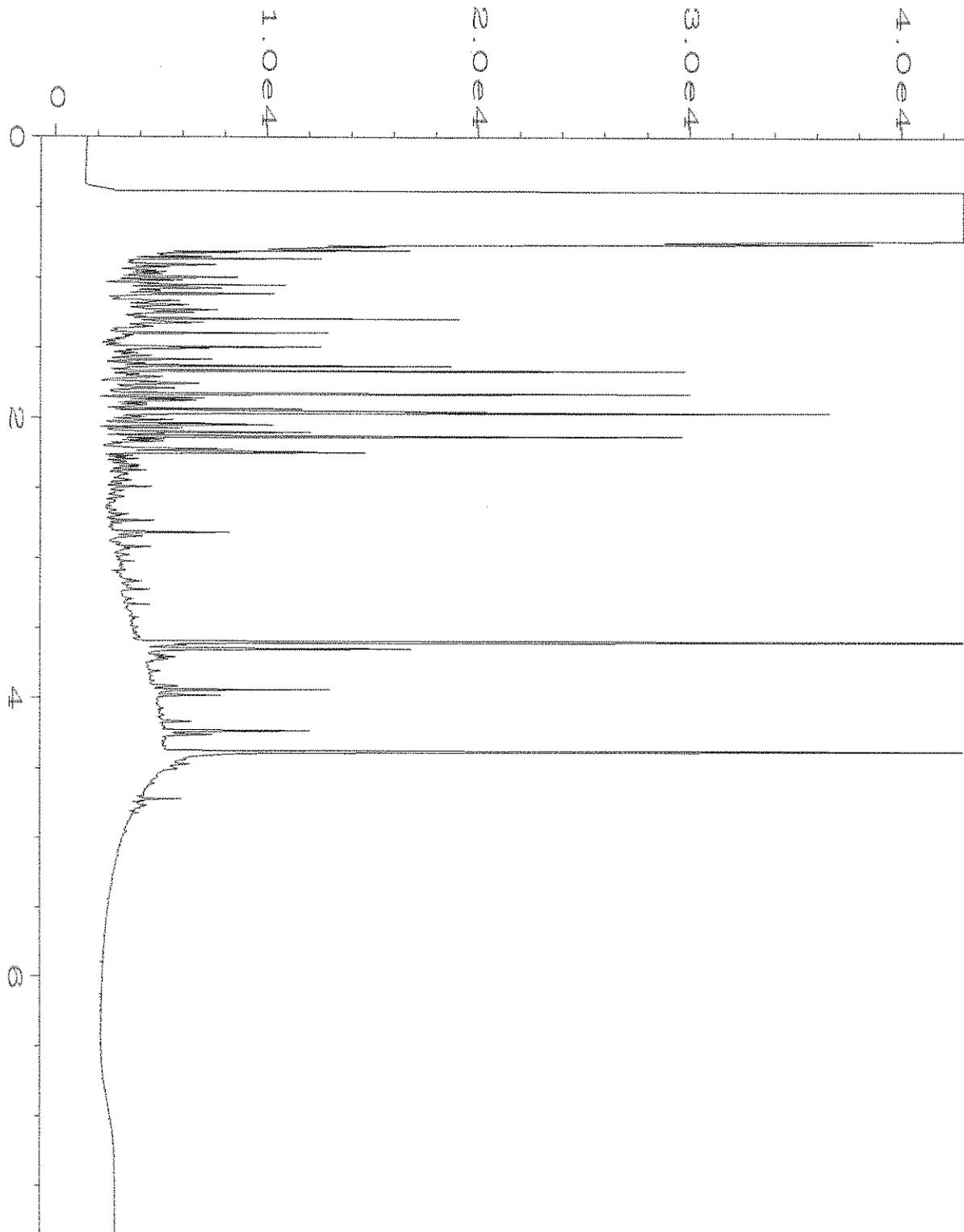
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-02	Sequence Line	: 12
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 04:42 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:25 AM		



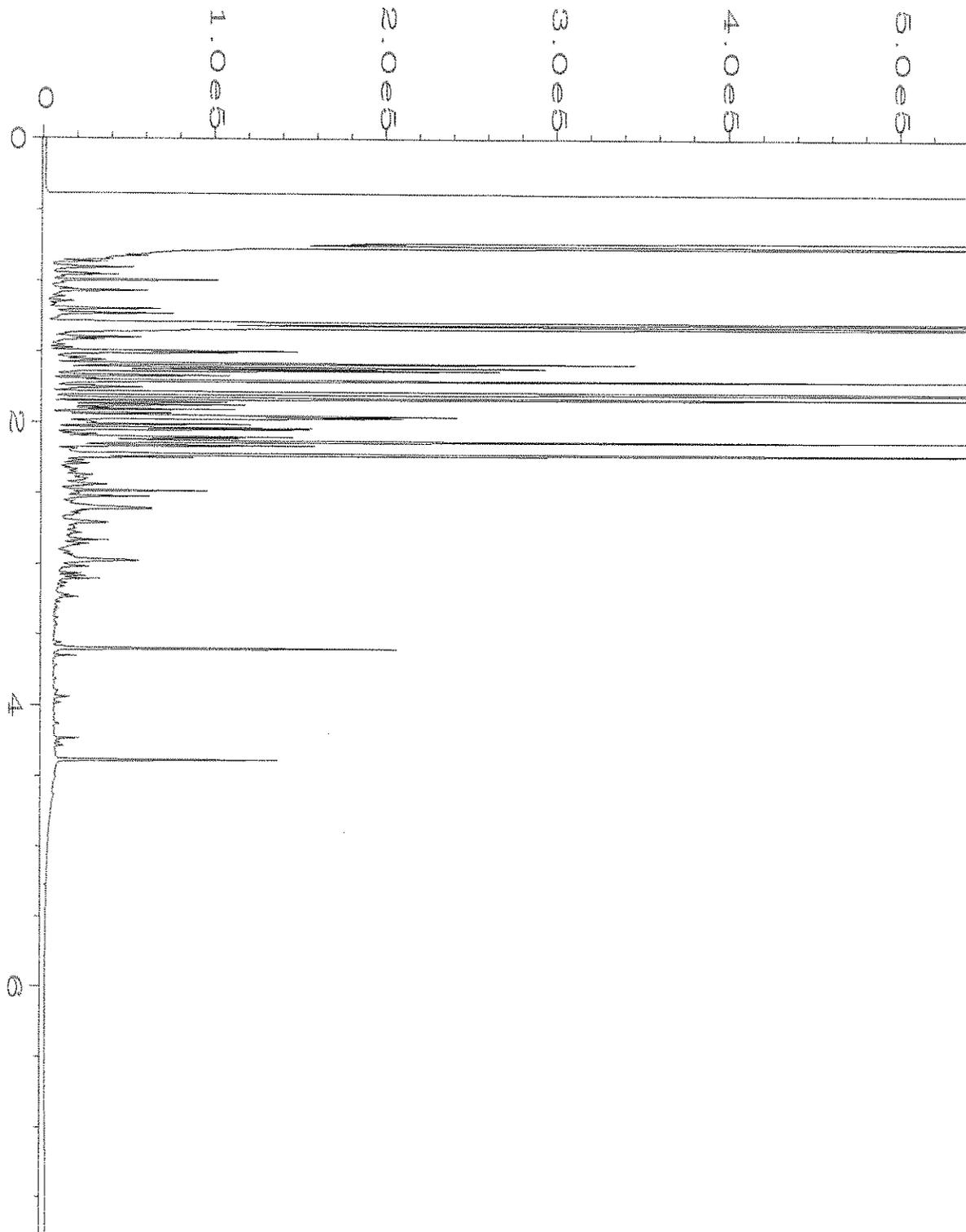
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Operator	: TL	Vial Number	: 43
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-03	Sequence Line	: 12
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 04:55 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:25 AM		



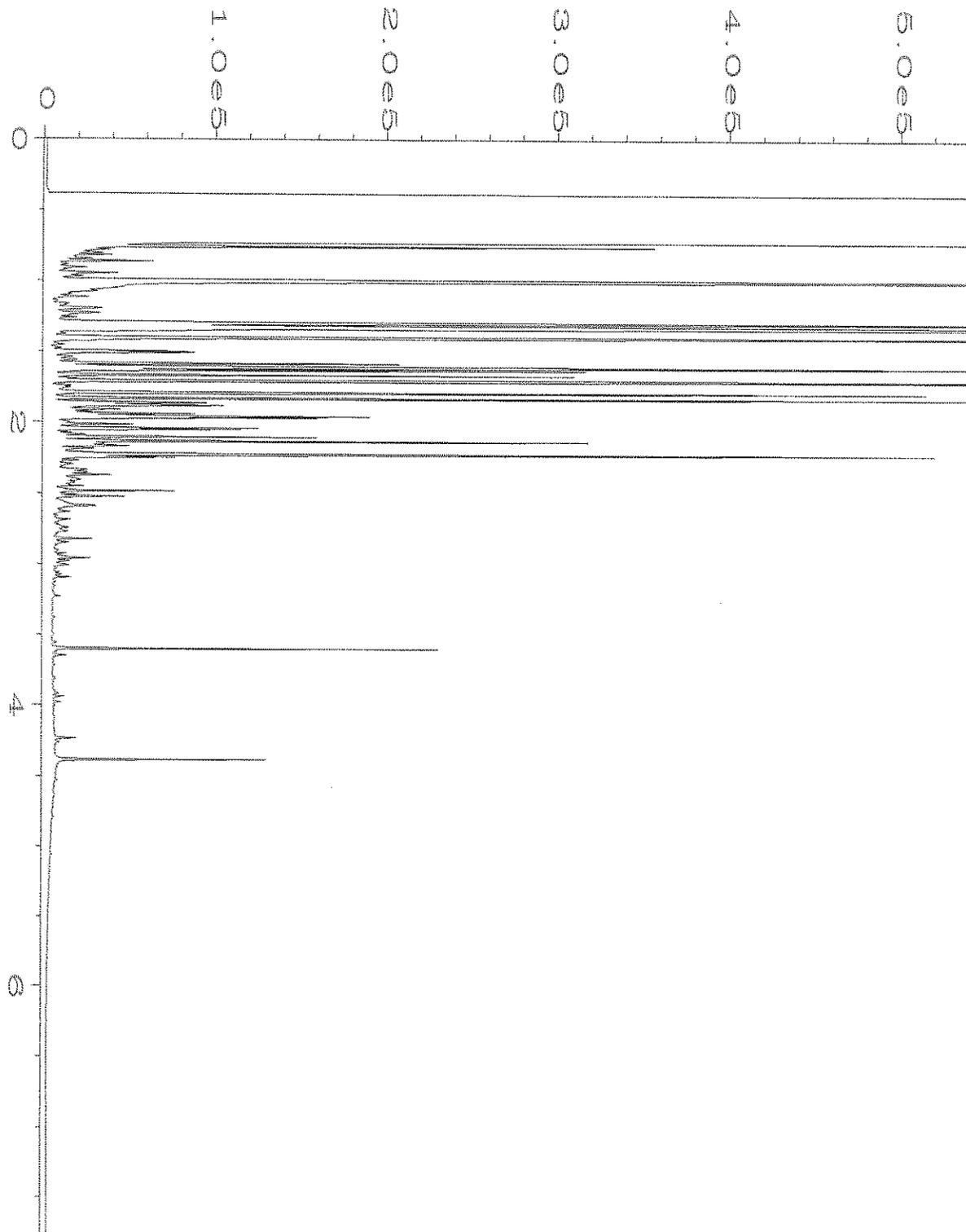
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Operator	: TL	Vial Number	: 44
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-04	Sequence Line	: 12
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 05:07 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:25 AM		



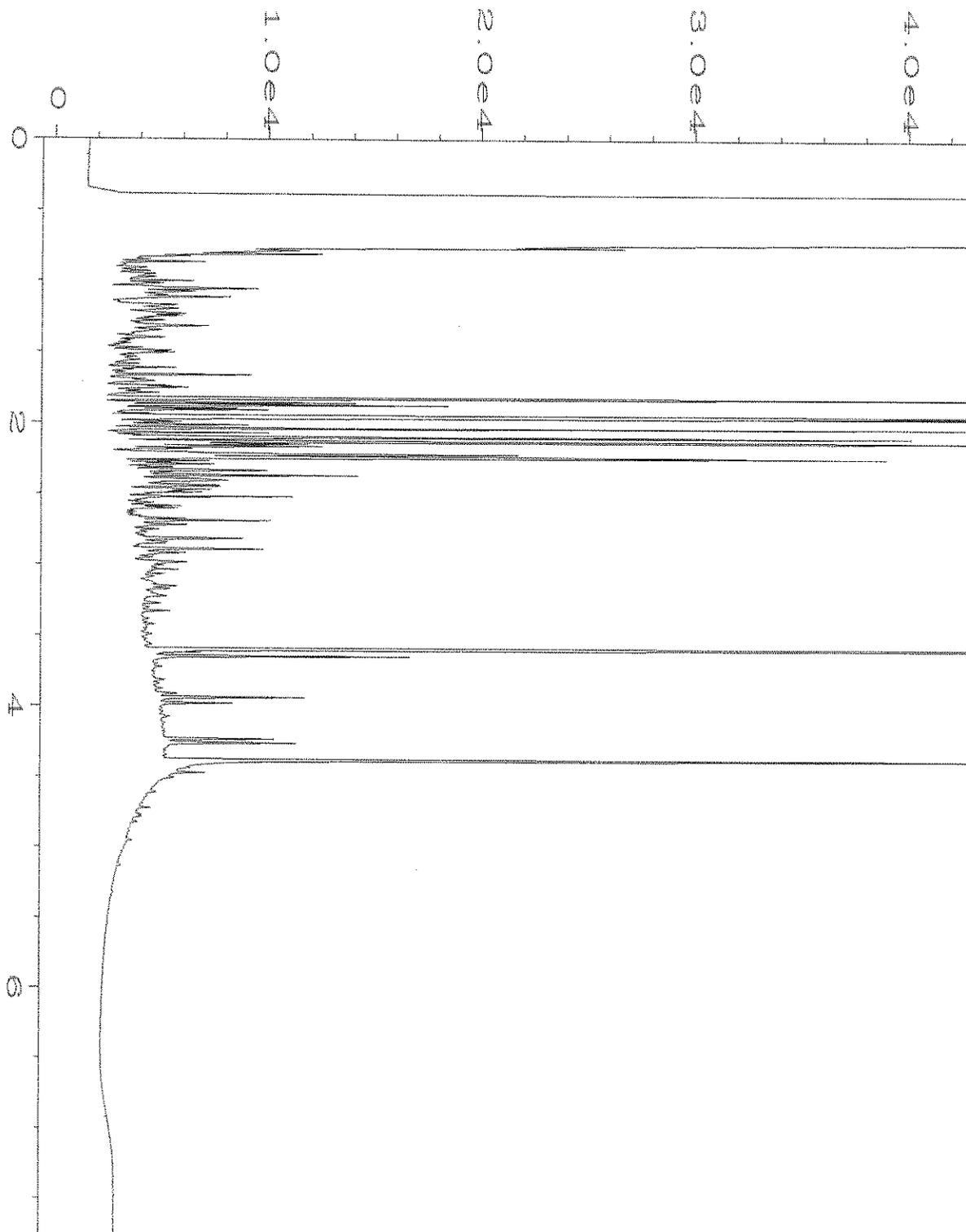
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-05	Sequence Line	: 12
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 05:18 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:26 AM		



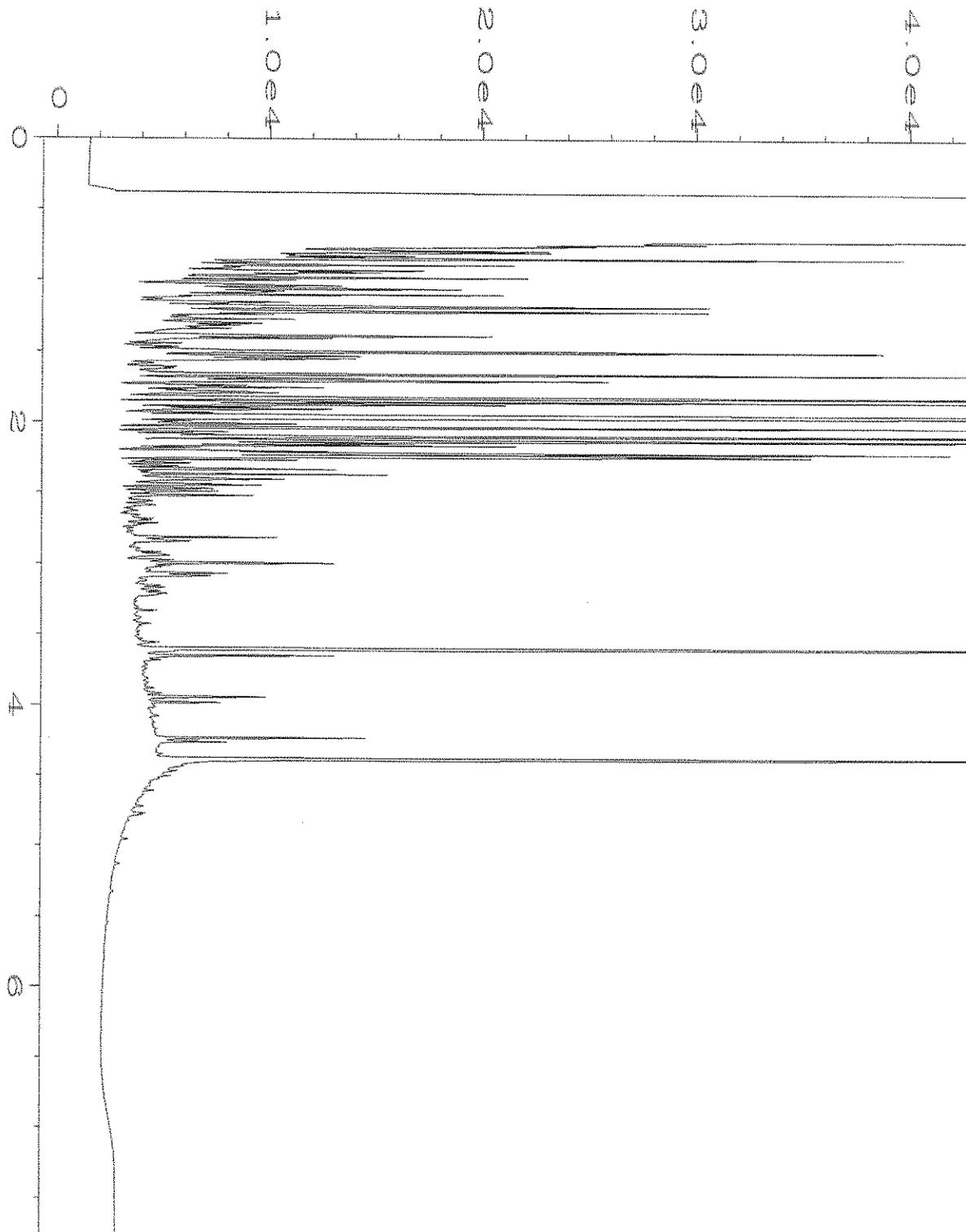
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Operator	: TL	Vial Number	: 46
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-06	Sequence Line	: 12
Run Time Bar Code:		Instrument Method	: DX.MTH
Acquired on	: 21 Nov 19 05:31 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:26 AM		



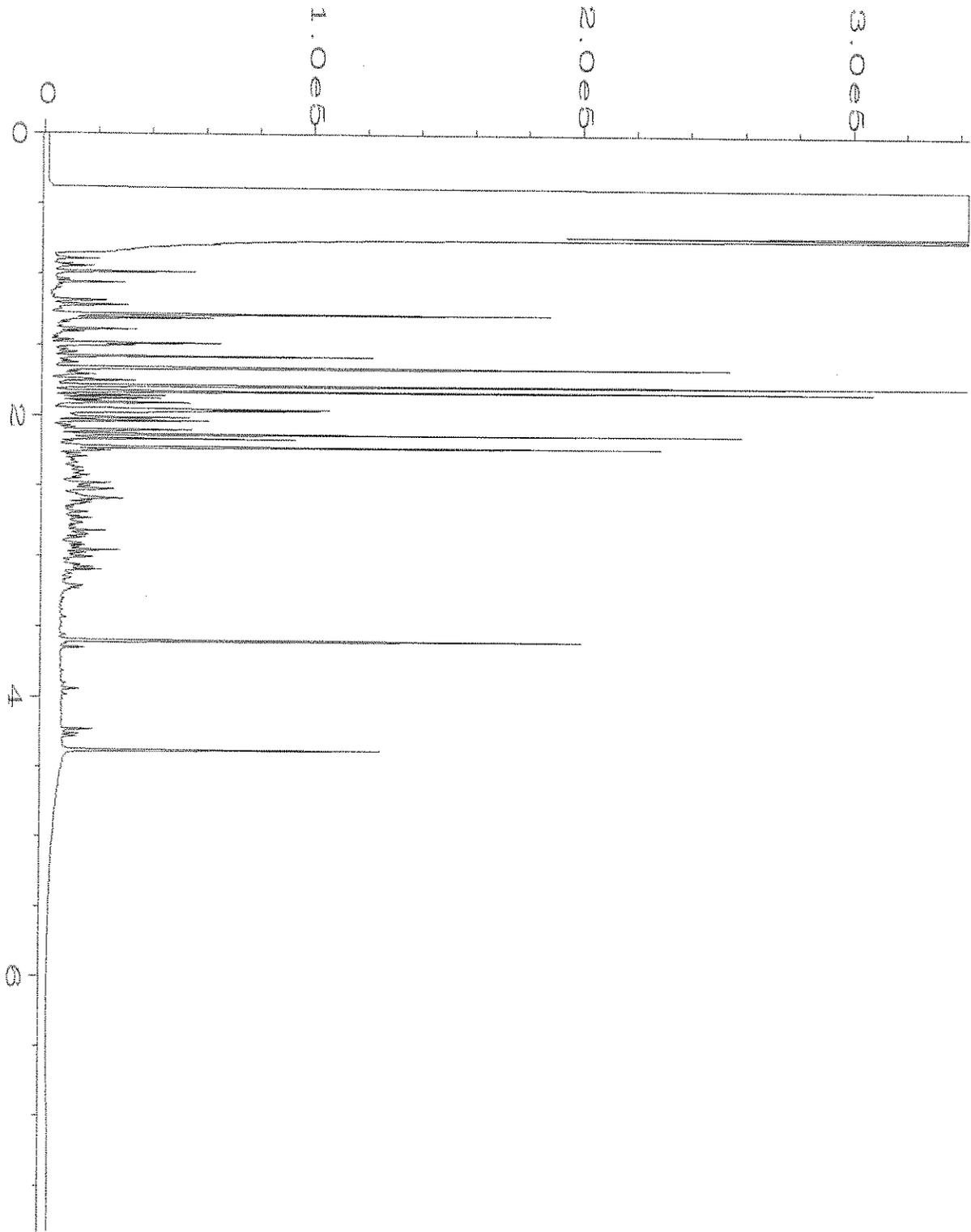
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-07	Sequence Line	: 12
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 05:43 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:27 AM		



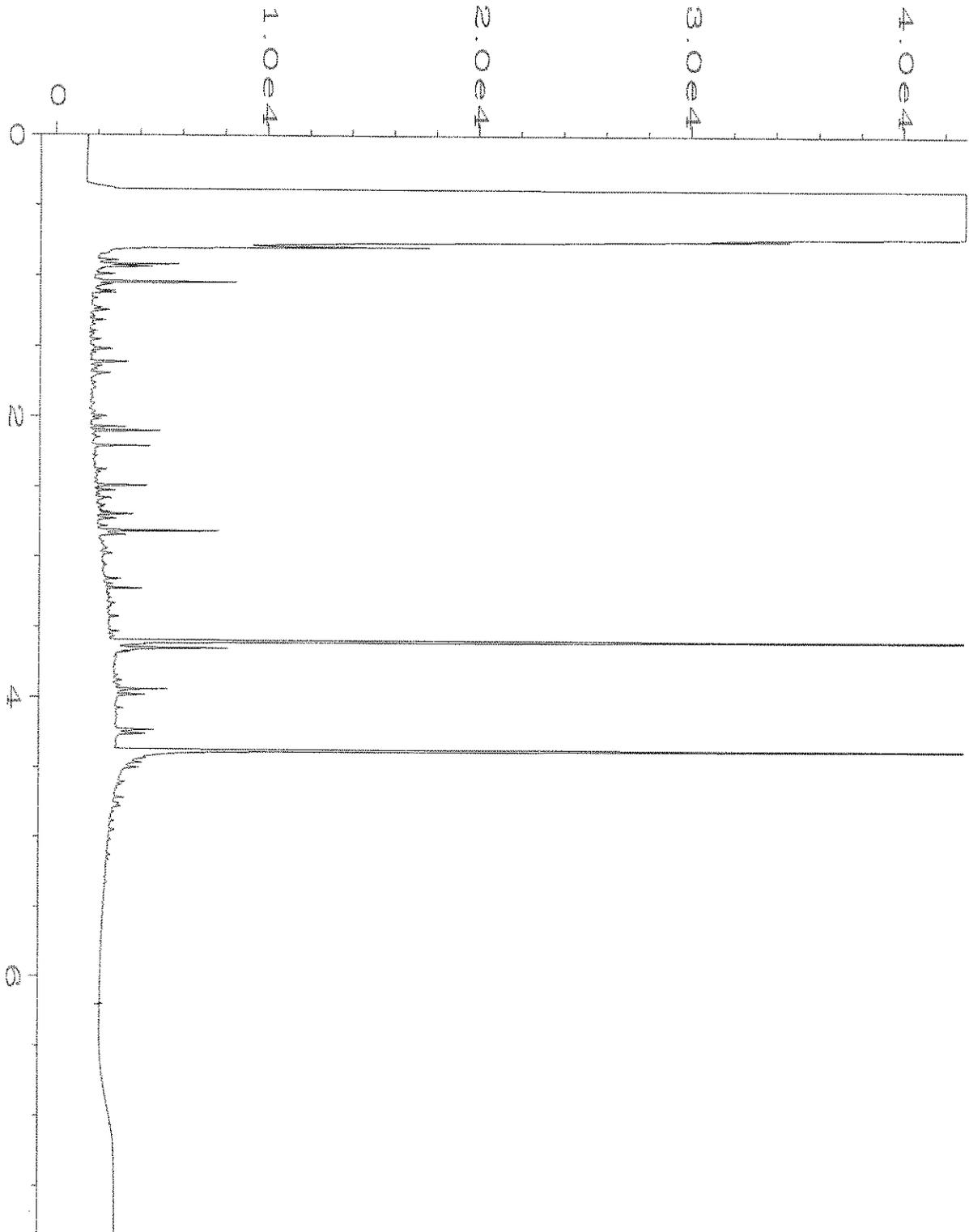
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Operator	: TL	Vial Number	: 48
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-08	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 06:18 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:27 AM		



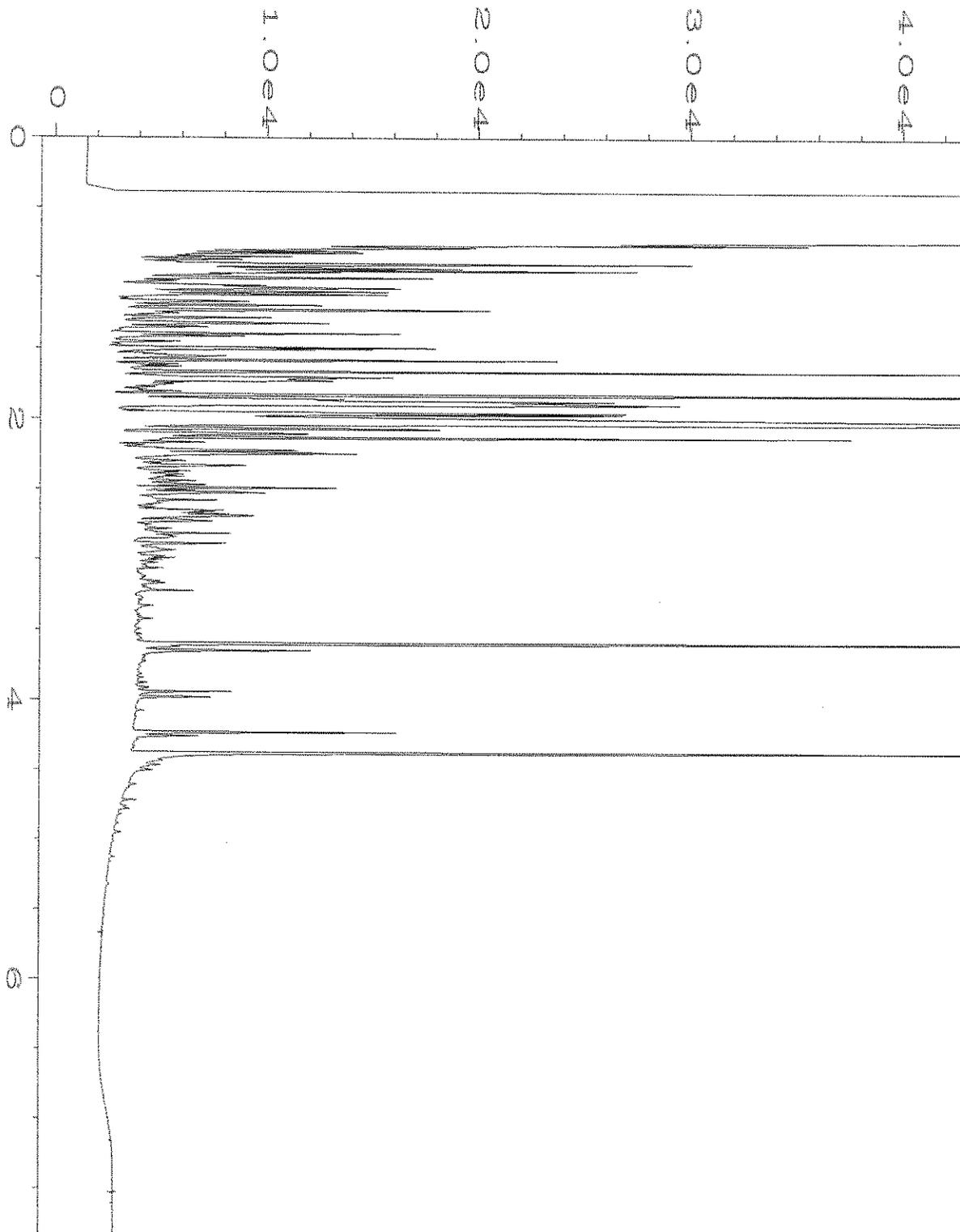
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Operator	: TL	Vial Number	: 49
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-09	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 06:30 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:27 AM		



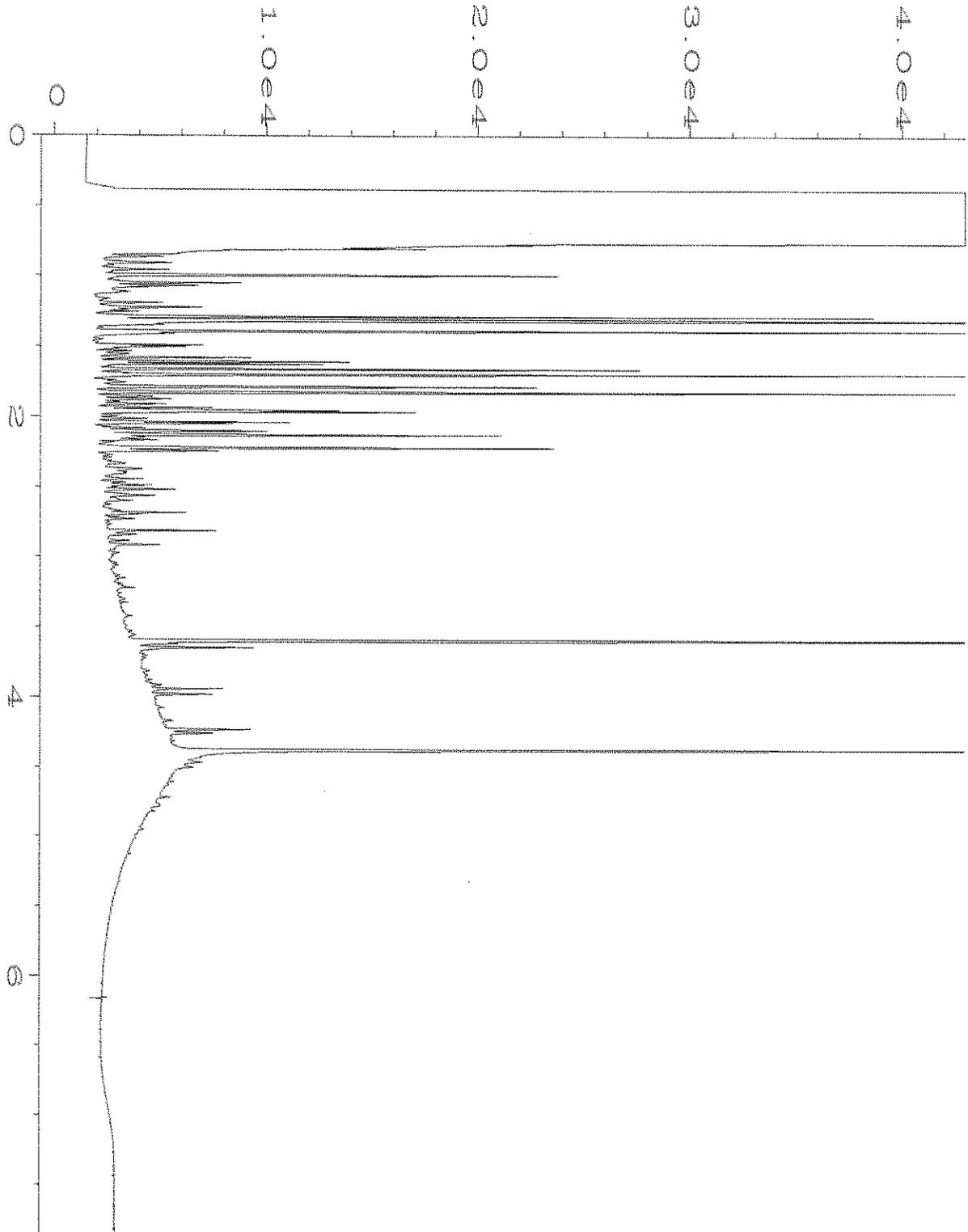
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Sample Name	: 911310-10	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
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Report Created on:	22 Nov 19 09:27 AM		



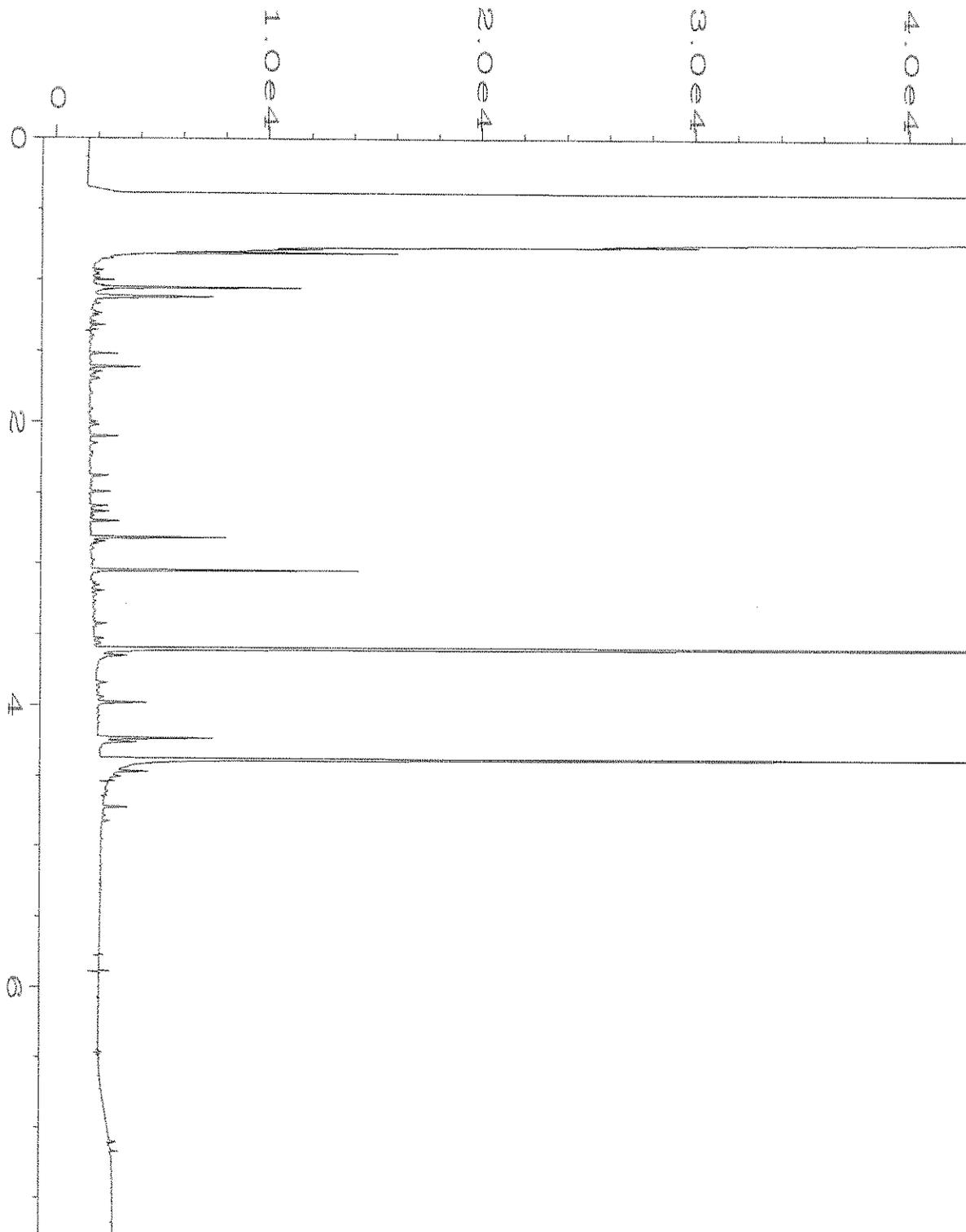
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-11	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
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Report Created on:	22 Nov 19 09:27 AM		



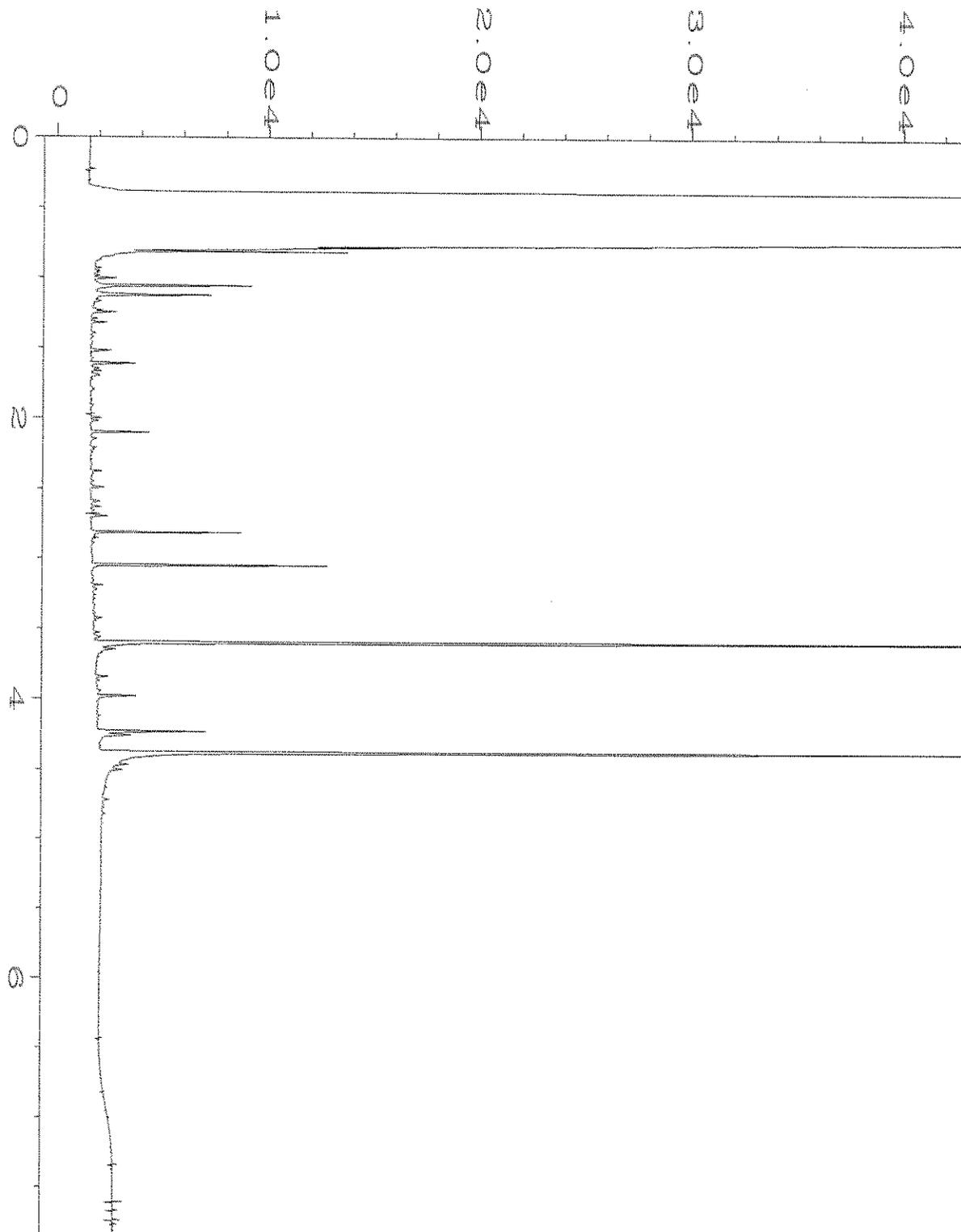
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-12	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
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Report Created on:	22 Nov 19 09:28 AM		



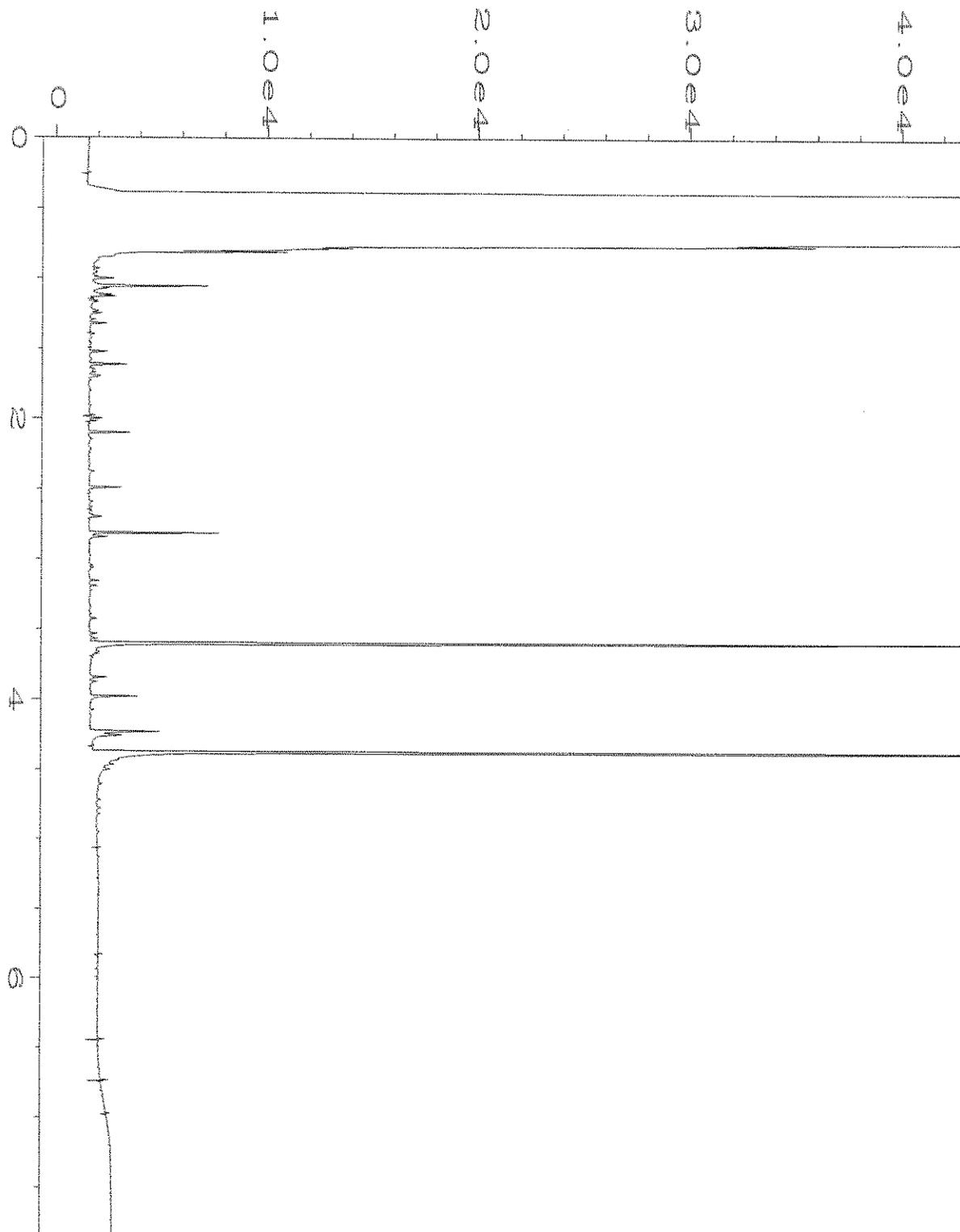
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-13	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
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Report Created on:	22 Nov 19 09:28 AM		



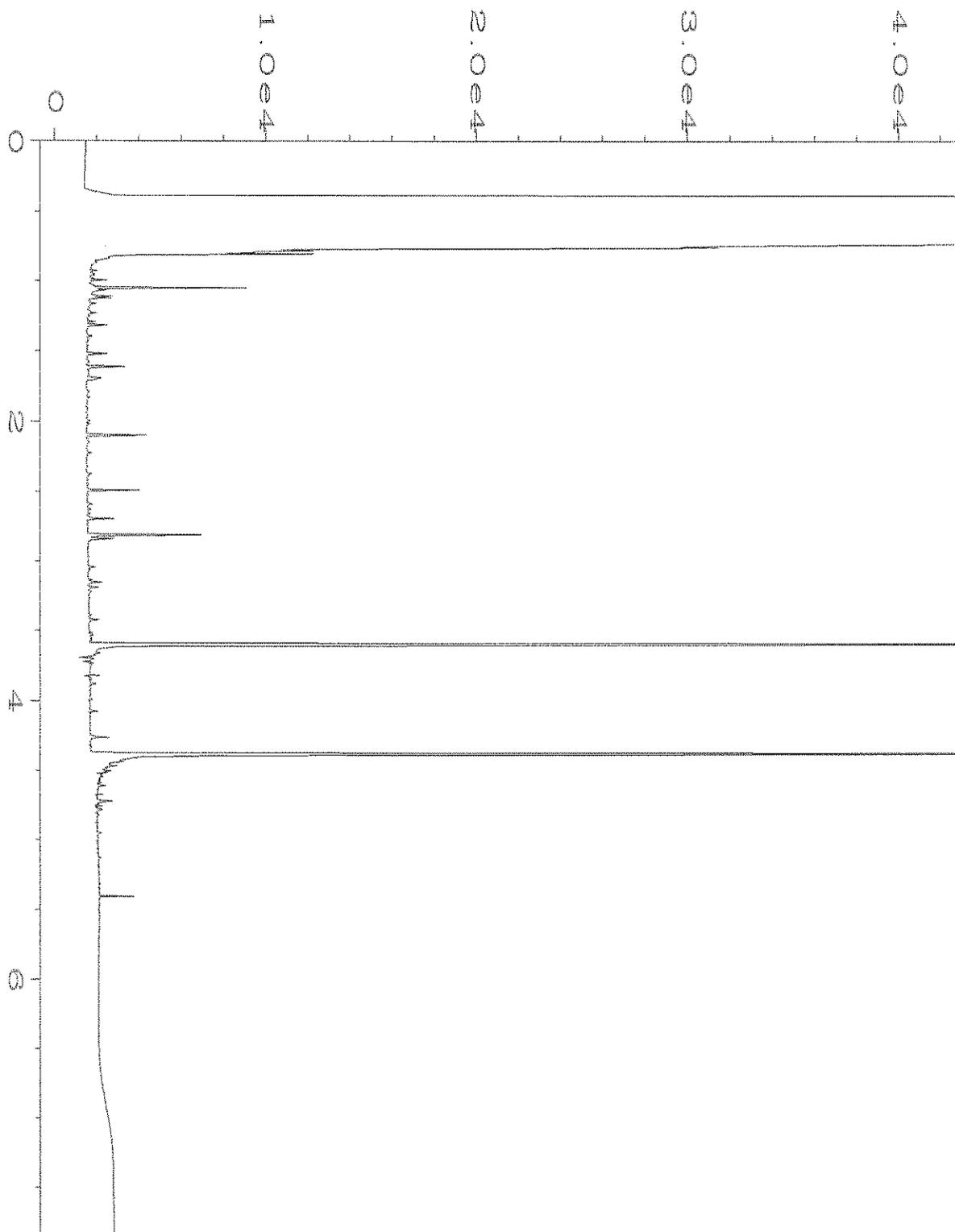
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-14	Sequence Line	: 14
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Report Created on:	22 Nov 19 09:28 AM		



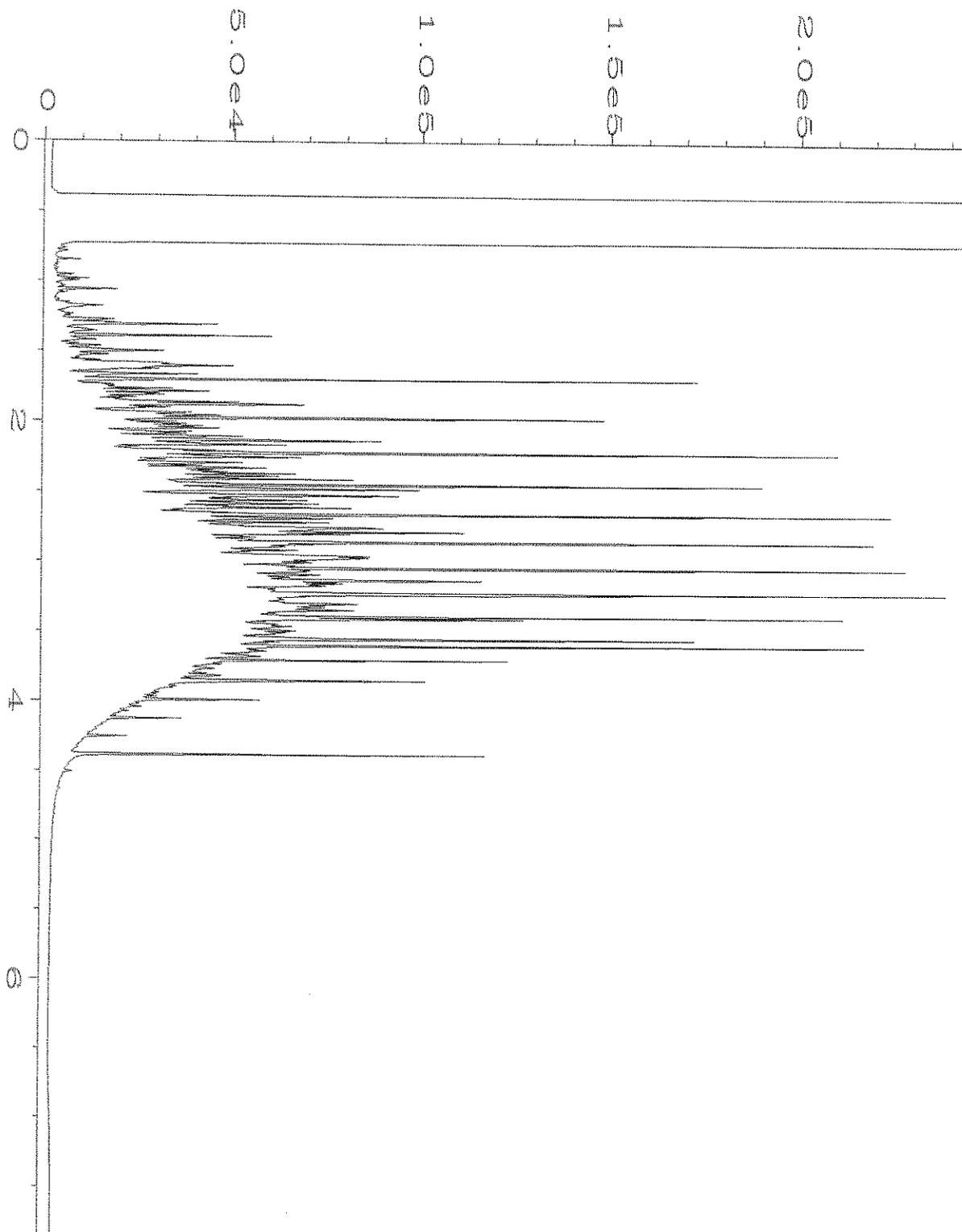
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Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-15	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 07:42 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:28 AM		



Data File Name	: C:\HPCHEM\4\DATA\11-21-19\056F1401.D	Page Number	: 1
Operator	: TL	Vial Number	: 56
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 911310-16	Sequence Line	: 14
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 07:54 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:28 AM		



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Operator	: TL	Vial Number	: 38
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 09-2869 mb	Sequence Line	: 12
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 03:54 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:29 AM		



Data File Name	: C:\HPCHEM\4\DATA\11-21-19\005F1101.D	Page Number	: 1
Operator	: TL	Vial Number	: 5
Instrument	: GC#4	Injection Number	: 1
Sample Name	: 1000 Dx 58-146C	Sequence Line	: 11
Run Time Bar Code:		Instrument Method:	DX.MTH
Acquired on	: 21 Nov 19 02:54 PM	Analysis Method	: DEFAULT.MTH
Report Created on:	22 Nov 19 09:20 AM		

911310

SAMPLE CHAIN OF CUSTODY ME 11/20/19 WUS/BOS/AR52

Report To: Andrew Yankofski / Adam Griffin

Company: Aspect Consulting

Address: 710 2nd Ave Ste 550

City, State, ZIP: Seattle, WA, 98104

Phone: 206-413-5711 Email: ayankofski@aspectconsulting.com

SAMPLERS (signature) <u>David Dool</u>		TURNAROUND TIME
PROJECT NAME	PO #	
<u>Alaska Coke</u>	<u>180357</u>	
REMARKS	INVOICE TO	
	<u>ADP</u>	
Project specific RLS? - Yes / No <input checked="" type="checkbox"/> / <input type="checkbox"/>		SAMPLE DISPOSAL
		<input type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH <input type="checkbox"/> Rush charges authorized by: <input type="checkbox"/> Archive samples <input type="checkbox"/> Other Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX 8260	MTBE, ED3, ED4, Naphthalene 8260	Total Pb 6010		WUXs 8260
MW-1-112019	01 A-B	11/20/19	0935x	Water	8	X	X						X	X	X		
MW-2-112019	02 T	11/20/19	1320														
MW-6-112019	03	11/19/19	1020														
MW-7-111919	04	11/19/19	1335														
MW-9-112019	05	11/20/19	1120x														
MW-10-112019	06	11/20/19	1130x														
MW-11-111919	07	11/19/19	1235														
MW-12-112019	08	11/20/19	1220x														
MW-13-112019	09	11/20/19	1225														
MW-14-112019	10	11/20/19	1035x														

Samples received at LCC

Friedman & Bruvo, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>David Dool</u>	<u>David Dool</u>	<u>Aspect Consulting</u>	<u>11/20/19</u>	<u>14:38</u>
<u>David Dool</u>	<u>David Dool</u>	<u>FER</u>	<u>11-20-19</u>	<u>14:38</u>
Received by:				
Reinquished by:				
Received by:				

911310

SAMPLE CHAIN OF CUSTODY ME 11-20-19

Page # 105 of 2 / 155

Report To: Andrew Verhulst / Adam LeFevre

Company: Aspect Consultants

Address: 710 2nd Ave, Ste 550

City, State, ZIP: Seattle, WA, 98104

Phone: 206-413-5711 Email: av@verhulst.com

SAMPLERS (signature) <u>David Umk</u>	PROJECT NAME <u>Alma Lake</u>
PO # <u>180357</u>	REMARKS <u>AP</u>
INVOICE TO	Project specific RI's? Yes / <u>No</u>

TURNAROUND TIME	SAMPLE DISPOSAL
<input checked="" type="checkbox"/> Standard turnaround	<input type="checkbox"/> Archive samples
<input type="checkbox"/> RUSH	<input type="checkbox"/> Other
Rush charges authorized by:	Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX 8260	MTBE, EDB, EDC + naphthalene 8260	Total Pb 6010	
MU-16-111414	<del>11A-B</del> (NO) A-H	11/19/14	0920	Water	8	X	X						X	X	X	
MU-17-111914	12	11/19/14	1005													
MU-18-111914	13	11/19/14	1110													
MU-19-112014	14	11/20/14	0910													
DDP-01-112014	15															
Amesblanks-112014	16															
Trop blank	17 K.B				2											

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Reinquished by: <u>David Umk</u>	<u>David Umk</u>	<u>Aspect Consultants</u>	<u>11/20/14</u>	<u>1438</u>
Received by: <u>[Signature]</u>	<u>DO 10</u>	<u>FCB</u>	<u>11-20-19</u>	<u>14:38</u>
Reinquished by:				
Received by:				

Friedman & Bruya, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-2029  
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Vineta Mills, M.S.  
Eric Young, B.S.

5500 4th Avenue South  
Seattle, WA 98108  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

August 22, 2023

Breeyn Greer, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Greer:

Included is the amended report from the testing of material submitted on August 18, 2020 from the Texaco Strickland 180357, F&BI 008261 project. The cVOC results for MW-14, MW-16, MW-18, and MW-19 were included in the report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Adam Griffin  
ASP0821R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Vineta Mills, M.S.  
Eric Young, B.S.

5500 4th Avenue South  
Seattle, WA 98108  
(206) 285-8282  
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August 21, 2023

Breeyn Greer, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Greer:

Included are the additional results from the testing of material submitted on August 18, 2020 from the Texaco Strickland 180357, F&BI 008261 project. There are 50 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Adam Griffin  
ASP0821R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 18, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 008261 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
008261 -01	MW-1-081820
008261 -02	MW-2-081720
008261 -03	MW-4-081820
008261 -04	MW-6-081720
008261 -05	MW-7-081720
008261 -06	MW-8-081820
008261 -07	MW-9-081820
008261 -08	MW-10-081820
008261 -09	MW-11-081720
008261 -10	MW-12-081720
008261 -11	MW-13-081720
008261 -12	MW-14-081820
008261 -13	MW-16-081720
008261 -14	MW-17-081720
008261 -15	MW-18-081820
008261 -16	MW-19-081820
008261 -17	MW-20-081720
008261 -18	MW-21-081720
008261 -19	MW-22-081720
008261 -20	MW-23-081820
008261 -21	MW-24-081820
008261 -22	MW-25-081820
008261 -23	MW-26-081820
008261 -24	DUP-01-081720
008261 -25	DUP-02-081720
008261 -26	RB-01-081720
008261 -27	RB-02-081820
008261 -28	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland 180357
Date Extracted:	08/19/20	Lab ID:	008261-12
Date Analyzed:	08/19/20	Data File:	081936.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	106	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.90
cis-1,2-Dichloroethene	<1
trans-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	2.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-16-081720	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland 180357
Date Extracted:	08/19/20	Lab ID:	008261-13
Date Analyzed:	08/19/20	Data File:	081917.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-18-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland 180357
Date Extracted:	08/19/20	Lab ID:	008261-15
Date Analyzed:	08/19/20	Data File:	081918.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-19-081820	Client:	Aspect Consulting, LLC
Date Received:	08/18/20	Project:	Texaco Strickland 180357
Date Extracted:	08/19/20	Lab ID:	008261-16
Date Analyzed:	08/19/20	Data File:	081919.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	13

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	08/19/20	Lab ID:	00-1852 mb
Date Analyzed:	08/19/20	Data File:	081909.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	08/19/20	Lab ID:	00-1853 mb
Date Analyzed:	08/19/20	Data File:	081910.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/21/23

Date Received: 08/18/20

Project: Texaco Strickland 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008261-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	10	<0.2	112	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	104	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	105	10-211
Trichloroethene	ug/L (ppb)	10	<1	99	35-149
Tetrachloroethene	ug/L (ppb)	10	<1	100	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Vinyl chloride	ug/L (ppb)	10	112	107	64-142	5
trans-1,2-Dichloroethene	ug/L (ppb)	10	106	104	70-130	2
cis-1,2-Dichloroethene	ug/L (ppb)	10	107	105	70-130	2
Trichloroethene	ug/L (ppb)	10	100	99	70-130	1
Tetrachloroethene	ug/L (ppb)	10	102	102	70-130	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/21/23

Date Received: 08/18/20

Project: Texaco Strickland 180357, F&BI 008261

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 008261-23 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Vinyl chloride	ug/L (ppb)	10	<0.2	112	16-176
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	103	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	102	50-150
Trichloroethene	ug/L (ppb)	10	<1	91	43-133
Tetrachloroethene	ug/L (ppb)	10	2.1	101 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Vinyl chloride	ug/L (ppb)	10	113	116	43-149	3
trans-1,2-Dichloroethene	ug/L (ppb)	10	105	107	70-130	2
cis-1,2-Dichloroethene	ug/L (ppb)	10	104	106	70-130	2
Trichloroethene	ug/L (ppb)	10	88	92	70-130	4
Tetrachloroethene	ug/L (ppb)	10	97	102	70-130	5

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Vineta Mills, M.S.  
Eric Young, B.S.

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fbi@isomedia.com  
www.friedmanandbruya.com

August 22, 2023

Breeyn Greer, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Greer:

Included is the amended report from the testing of material submitted on November 18, 2020 from the Texaco Strickland 180357, F&BI 011339 project. The cVOC results for MW-14, MW-16, MW-18, and MW-19 were included in the report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Adam Griffin  
ASP0821R.DOC

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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August 21, 2023

Breeyn Greer, Project Manager  
Aspect Consulting, LLC  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Greer:

Included are the additional results from the testing of material submitted on November 18, 2020 from the Texaco Strickland 180357, F&BI 011339 project. There are 38 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Adam Griffin  
ASP0821R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 18, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 011339 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
011339 -01	MW-1-111820
011339 -02	MW-2-111720
011339 -03	MW-6-111620
011339 -04	MW-7-111720
011339 -05	MW-9-111620
011339 -06	MW-10-111720
011339 -07	MW-11-111720
011339 -08	MW-12-111620
011339 -09	MW-13-111720
011339 -10	MW-14-111820
011339 -11	MW-16-111620
011339 -12	MW-17-111620
011339 -13	MW-18-111620
011339 -14	MW-19-111720
011339 -15	MW-20-111720
011339 -16	MW-21-111720
011339 -17	MW-22-111620
011339 -18	MW-23-111820
011339 -19	MW-24-111720
011339 -20	MW-25-111620
011339 -21	MW-26-111620
011339 -22	CMW-1-111720
011339 -23	CMW-4-111720
011339 -24	DUP-01-111620
011339 -25	DUP-02-111720
011339 -26	RB-01-111720
011339 -27	RB-02-111820
011339 -28	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-111820	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland 180357
Date Extracted:	11/19/20	Lab ID:	011339-10 1/10
Date Analyzed:	11/20/20	Data File:	111950.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	118	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
trans-1,2-Dichloroethene	<10
cis-1,2-Dichloroethene	<10
Trichloroethene	<10
Tetrachloroethene	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-16-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland 180357
Date Extracted:	11/19/20	Lab ID:	011339-11
Date Analyzed:	11/19/20	Data File:	111942.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-18-111620	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland 180357
Date Extracted:	11/19/20	Lab ID:	011339-13
Date Analyzed:	11/20/20	Data File:	111944.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	121	50	150
Toluene-d8	94	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-19-111720	Client:	Aspect Consulting, LLC
Date Received:	11/18/20	Project:	Texaco Strickland 180357
Date Extracted:	11/19/20	Lab ID:	011339-14
Date Analyzed:	11/20/20	Data File:	111945.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	105	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	9.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	11/19/20	Lab ID:	00-2696 mb
Date Analyzed:	11/19/20	Data File:	111908.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	11/19/20	Lab ID:	00-2545 mb
Date Analyzed:	11/19/20	Data File:	111907.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	125	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
trans-1,2-Dichloroethene	<1
cis-1,2-Dichloroethene	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/21/23

Date Received: 11/18/20

Project: Texaco Strickland 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011340-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	10	<0.2	102	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	101	10-211
Trichloroethene	ug/L (ppb)	10	<1	104	35-149
Tetrachloroethene	ug/L (ppb)	10	<1	104	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Vinyl chloride	ug/L (ppb)	10	114	122	64-142	7
trans-1,2-Dichloroethene	ug/L (ppb)	10	97	104	70-130	7
cis-1,2-Dichloroethene	ug/L (ppb)	10	97	103	70-130	6
Trichloroethene	ug/L (ppb)	10	99	106	70-130	7
Tetrachloroethene	ug/L (ppb)	10	101	102	70-130	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/21/23

Date Received: 11/18/20

Project: Texaco Strickland 180357, F&BI 011339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR VOLATILES BY EPA METHOD 8260D**

Laboratory Code: 011339-19 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Vinyl chloride	ug/L (ppb)	10	<0.2	80	36-166
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	61-136
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	63-134
Trichloroethene	ug/L (ppb)	10	<1	102	66-135
Tetrachloroethene	ug/L (ppb)	10	<1	100	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Vinyl chloride	ug/L (ppb)	10	102	93	50-154	9
trans-1,2-Dichloroethene	ug/L (ppb)	10	110	101	68-128	9
cis-1,2-Dichloroethene	ug/L (ppb)	10	107	100	74-136	7
Trichloroethene	ug/L (ppb)	10	106	101	67-133	5
Tetrachloroethene	ug/L (ppb)	10	101	97	76-121	4

# FRIEDMAN & BRUYA, INC.

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## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

## **APPENDIX D**

### **Data Validation Reports**



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

September 13, 2019

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on August 15, 2019. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### LDC Project #45754:

<u>SDG #</u>	<u>Fraction</u>
906075, 906200 906232, 906279 907276, 908023	Volatiles, TPH as Gasoline, TPH as Diesel & Motor Oil, Lead

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SOP HW-24, Revision 4, October 2014
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review; January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

*Christina Rink*

Christina Rink  
[CRink@lab-data.com](mailto:CRink@lab-data.com)  
Project Manager/Senior Chemist



**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906075

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-04-2	906075-02	Soil	06/05/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 906075**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 906075**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 906075**

No Sample Data Qualified in this SDG

LDC #: 45754A1a

# VALIDATION COMPLETENESS WORKSHEET

Date: 09/04/19

SDG #: 906075

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: 

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	Non client
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-04-2	906075-02	Soil	06/05/19
2				
3				
4				
5				
6				
7				
8				

Notes:

1	09-1316 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906075

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-04-2	906075-02	Soil	06/05/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
906075**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 906075**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 906075**

No Sample Data Qualified in this SDG

LDC #: 45754A7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 906075

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-04-2	906075-02	Soil	06/05/19
2				
3				
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11				

Notes:

1	09-1285 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Diesel & Motor Oil  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906075

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-04-2	906075-02	Soil	06/05/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Data Qualification  
Summary - SDG 906075**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Laboratory Blank Data  
Qualification Summary - SDG 906075**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Field Blank Data  
Qualification Summary - SDG 906075**

No Sample Data Qualified in this SDG

LDC #: 45754A8  
 SDG #: 906075  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level II

Date: 09/04/19  
 Page: 1 of 1  
 Reviewer: LT  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel <sup>and Motor Oil</sup> (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	GP-04-2	906075-02	Soil	06/05/19
2				
3				
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10				
11				

Notes:

1	09-1347-MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906200

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-11-1	906200-01	Soil	06/10/19
MW-11-1DL	906200-01DL	Soil	06/10/19
MW-11-6	906200-02	Soil	06/10/19
MW-11-6DL	906200-02DL	Soil	06/10/19
MW-12-15	906200-14	Soil	06/10/19
MW-13-12.5	906200-23	Soil	06/11/19
MW-14-12.5	906200-27	Soil	06/11/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Methods 8260C/8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

No field blanks were identified in this SDG.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Compound	Flag	A or P
MW-11-1	Toluene-d8	255 (50-150)	All compounds	J (all detects)	A
MW-11-6	Toluene-d8 Bromofluorobenzene	741 (50-150) 428 (50-150)	All compounds	J (all detects)	A

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	Flag	A or P
LCS/D (061419) (MW-11-1 MW-11-6)	Naphthalene	136 (70-130)	-	J (all detects)	A

Relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	RPD (Limits)	Flag	A or P
LCS/D (061419) (MW-11-1 MW-11-6)	Naphthalene	31 ( $\leq 20$ )	J (all detects)	P

## X. Field Duplicates

No field duplicates were identified in this SDG.

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Flag	A or P
MW-11-1	Naphthalene	DNR	-
MW-11-1DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-
MW-11-6	Naphthalene	DNR	-
MW-11-6DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-

No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 906200**

Sample	Compound	Flag	A or P	Reason
MW-11-1	Naphthalene	DNR	-	Overall assessment of data
MW-11-1DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-	Overall assessment of data
MW-11-6	Naphthalene	DNR	-	Overall assessment of data
MW-11-6DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

LDC #: 45754B1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 906200

Level II

Page: 6 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C/D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	SW	
VIII.	Matrix spike/Matrix spike duplicates	A	SDG 906232
IX.	Laboratory control samples	SW	LCS/D
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SW	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-11-1	906200-01	Soil	06/10/19
2	MW-11-1 <del>REDL</del>	906200-01 <del>REDL</del>	Soil	06/10/19
3	MW-11-6	906200-02	Soil	06/10/19
4	MW-11-6 <del>REDL</del>	906200-02 <del>REDL</del>	Soil	06/10/19
5	MW-12-15	906200-14	Soil	06/10/19
6	MW-13-12.5	906200-23	Soil	06/11/19
7	MW-14-12.5	906200-27	Soil	06/11/19
8				

Notes:


## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.





**VALIDATION FINDINGS WORKSHEET**  
**Overall Assessment of Data**

**METHOD:** GC/MS VOA (EPA SW 846 Method 8260C/D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		1	MMM	DL higher result	DNR
		2	LL, TT, L	original run lower RL	↓
		3	MMM	DL higher result	
		4	LL, TT, L	original run lower RL	

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Lead  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906200

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-11-6	906200-02	Soil	06/10/19
MW-11-6MS	906200-02MS	Soil	06/10/19
MW-11-6MSD	906200-02MSD	Soil	06/10/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for the Evaluation of Lead for the Contract Laboratory Program*, SOP HW-2b, Revision 15 (December 2012), and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Lead by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

ICP-MS tune data were not reviewed for Stage 2A validation.

## **III. Instrument Calibration**

Instrument performance check data were not reviewed for Stage 2A validation.

## **IV. ICP Interference Check Sample Analysis**

Interference check sample (ICS) analysis data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Serial Dilution**

Serial dilution was not performed for this SDG.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

No field duplicates were identified in this SDG.

## **XII. Internal Standards (ICP-MS)**

Internal standard data were not reviewed for Stage 2A validation.

## **XIII. Sample Result Verification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Lead - Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Laboratory Blank Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Field Blank Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

LDC #: 45754B4a

# VALIDATION COMPLETENESS WORKSHEET

Date: 09/04/19

SDG #: 906200

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** Lead (EPA SW 846 Method 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	ICP/MS Tune	N	
III.	Instrument Calibration	N	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Laboratory Blanks	A	
VI.	Field Blanks	N	
VII.	Matrix Spike/Matrix Spike Duplicates	A	(2/3)
VIII.	Duplicate sample analysis	N	
IX.	Serial Dilution	N	
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	N	
XII.	Internal Standard (ICP-MS)	N	
XIII.	Sample Result Verification	N	
XIV.	Overall Assessment of Data	K	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-11-6	906200-02	Soil	06/10/19
2	MW-11-6MS	906200-02MS	Soil	06/10/19
3	MW-11-6MSD	906200-02MSD	Soil	06/10/19
4				
5				
6				
7				
8				
9				
10				
11				
12				

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 906200

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-11-1	906200-01	Soil	06/10/19
MW-11-6	906200-02	Soil	06/10/19
MW-11-13	906200-03	Soil	06/10/19
B-05-16	906200-09	Soil	06/10/19
MW-12-15	906200-14	Soil	06/10/19
B-06-13	906200-19	Soil	06/11/19
MW-13-12.5	906200-23	Soil	06/11/19
MW-14-12.5	906200-27	Soil	06/11/19
B-05-16DUP	906200-09DUP	Soil	06/10/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
906200**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 906200**

No Sample Data Qualified in this SDG

LDC #: 45754B7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 906200

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates / DUP	N / A	(a)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-11-1	906200-01	Soil	06/10/19
2	MW-11-6	906200-02	Soil	06/10/19
3	MW-11-13	906200-03	Soil	06/10/19
4	B-05-16	906200-09	Soil	06/10/19
5	MW-12-15	906200-14	Soil	06/10/19
6	B-06-13	906200-19	Soil	06/11/19
7	MW-13-12.5	906200-23	Soil	06/11/19
8	MW-14-12.5	906200-27	Soil	06/11/19
9	B-05-16DUP	906200-09DUP	Soil	06/10/19
10				
11				

Notes:

1	09-12-98 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Diesel & Motor Oil  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906200

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-11-6	906200-02	Soil	06/10/19
B-05-16	906200-09	Soil	06/10/19
MW-12-15	906200-14	Soil	06/10/19
B-06-13	906200-19	Soil	06/11/19
MW-13-12.5	906200-23	Soil	06/11/19
MW-14-12.5	906200-27	Soil	06/11/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Data Qualification  
Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Laboratory Blank Data  
Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Field Blank Data  
Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

LDC #: 45754B8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 06/04/19

SDG #: 906200

Level II

Page: ( of )

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

and Motor Oil

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-11-6	906200-02	Soil	06/10/19
2	B-05-16	906200-09	Soil	06/10/19
3	MW-12-15	906200-14	Soil	06/10/19
4	B-06-13	906200-19	Soil	06/11/19
5	MW-13-12.5	906200-23	Soil	06/11/19
6	MW-14-12.5	906200-27	Soil	06/11/19
7				
8				
9				
10				
11				

Notes:

1	09-1385 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 906200

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-11-1	906200-01	Soil	06/10/19
MW-11-6	906200-02	Soil	06/10/19
MW-11-13	906200-03	Soil	06/10/19
B-05-16	906200-09	Soil	06/10/19
MW-12-15	906200-14	Soil	06/10/19
B-06-13	906200-19	Soil	06/11/19
MW-13-12.5	906200-23	Soil	06/11/19
MW-14-12.5	906200-27	Soil	06/11/19
B-05-16DUP	906200-09DUP	Soil	06/10/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) which are Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by Environmental Protection Agency (EPA) SW 846 Method 8021B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 906200**

No Sample Data Qualified in this SDG

LDC #: 45754B23  
 SDG #: 906200  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level II

Date: 06/04/19  
 Page: 1 of 1  
 Reviewer: BT  
 2nd Reviewer: [Signature]

**METHOD:** GC Volatiles (BTEX) (EPA SW 846 Method 8021B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N, N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates DUP	N/A	(9)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-11-1	906200-01	Soil	06/10/19
2	MW-11-6	906200-02	Soil	06/10/19
3	MW-11-13	906200-03	Soil	06/10/19
4	B-05-16	906200-09	Soil	06/10/19
5	MW-12-15	906200-14	Soil	06/10/19
6	B-06-13	906200-19	Soil	06/11/19
7	MW-13-12.5	906200-23	Soil	06/11/19
8	MW-14-12.5	906200-27	Soil	06/11/19
9	B-05-16DUP	906200-09DUP	Soil	06/10/19
10				
11				

Notes:

1	09-1298 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 906232

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-15-7.5	906232-01	Soil	06/12/19
MW-15-10.5	906232-02	Soil	06/12/19
MW-15-10.5DL	906232-02DL	Soil	06/12/19
MW-15-13	906232-03	Soil	06/12/19
MW-15-13DL	906232-03DL	Soil	06/12/19
MW-15-25	906232-05	Soil	06/12/19
B-07-8	906232-07	Soil	06/12/19
B-07-12.5	906232-08	Soil	06/12/19
MW-15-7.5DUP	906232-01DUP	Soil	06/12/19
MW-15-17.5	906232-04	Soil	06/12/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Methods 8260C/8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met with the following exceptions:

Sample	Compound	Total Days From Sample Collection Until Analysis	Required Holding Time (in Days) From Sample Collection Until Analysis	Flag	A or P
MW-15-13	Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene	15	14	J (all detects) UJ (all non-detects)	A

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

No field blanks were identified in this SDG.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Compound	Flag	A or P
MW-15-10.5	Toluene-d8 Bromofluorobenzene	608 (50-150) 2673 (50-150)	All compounds	J (all detects)	A

Sample	Surrogate	%R (Limits)	Affected Compound	Flag	A or P
MW-15-13	Toluene-d8 Bromofluorobenzene	273 (50-150) 1029 (50-150)	All compounds	J (all detects)	A

### VIII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	Flag	A or P
LCS/D (061419) (MW-15-25)	m,p-Xylenes	163 (70-130)	-	NA	-
LCS/D (061419) (MW-15-10.5 MW-15-13)	Naphthalene	136 (70-130)	-	J (all detects)	P
LCS/D (061419) (MW-15-7.5 B-07-8 B-07-12.5)	Naphthalene	136 (70-130)	-	NA	-

Relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	RPD (Limits)	Flag	A or P
LCS/D (061419) (MW-15-25)	Ethylbenzene m,p-Xylenes	28 ( $\leq 20$ ) 52 ( $\leq 20$ )	UJ (all non-detects) UJ (all non-detects)	P
LCS/D (061419) (MW-15-7.5 MW-15-10.5 MW-15-10.5DL MW-15-13 B-07-8 B-07-12.5)	Naphthalene	31 ( $\leq 20$ )	J (all detects) UJ (all non-detects)	P

## X. Field Duplicates

No field duplicates were identified in this SDG.

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Flag	A or P
MW-15-10.5	Naphthalene	DNR	-
MW-15-10.5DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-
MW-15-13	Naphthalene	DNR	-
MW-15-13DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-

Due to technical holding time, surrogate %R, and LCS/LCSD %R and RPD, data were qualified as estimated in three samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 906232**

Sample	Compound	Flag	A or P	Reason
MW-15-13	Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene	J (all detects) UJ (all non-detects)	A	Technical holding times
MW-15-25	Ethylbenzene m,p-Xylenes	UJ (all non-detects) UJ (all non-detects)	P	Laboratory control samples (RPD)
MW-15-7.5 MW-15-10.5DL B-07-8 B-07-12.5	Naphthalene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (RPD)
MW-15-10.5	Naphthalene	DNR	-	Overall assessment of data
MW-15-10.5DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-	Overall assessment of data
MW-15-13	Naphthalene	DNR	-	Overall assessment of data
MW-15-13DL	Methyl-tert-butyl ether 1,2-Dibromoethane 1,2-Dichloroethane	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

LDC #: 45754C1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 04/04/19

SDG #: 906232

Level II

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: LT

2nd Reviewer: **METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C/D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, SA	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	SW	
VIII.	Matrix spike/Matrix spike duplicates <sup>DUP</sup>	N/A	(9)
IX.	Laboratory control samples	SW	LC5/D
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SA	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-15-7.5	906232-01	Soil	06/12/19
2	MW-15-10.5	906232-02	Soil	06/12/19
3	MW-15-10.5 <sup>REDL</sup>	906232-02 <sup>REDL</sup>	Soil	06/12/19
4	MW-15-13	906232-03	Soil	06/12/19
5	MW-15-13 <sup>REDL</sup>	906232-03 <sup>REDL</sup>	Soil	06/12/19
6	MW-15-25	906232-05	Soil	06/12/19
7	B-07-8	906232-07	Soil	06/12/19
8	B-07-12.5	906232-08	Soil	06/12/19
9	MW-15-7.5DUP	906232-01DUP	Soil	06/12/19
10	MW-15-17.5	↓ -04	↓	↓
11				
12				
13				

LDC #: 45754C1a **VALIDATION COMPLETENESS WORKSHEET**

SDG #: 906232

Laboratory: Friedman & Bruya, Inc.

Level II

Date: 09/04/19

Page: 2 of 2

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C/D)

Notes:


## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.







LDC #: 45754ch

### VALIDATION FINDINGS WORKSHEET Overall Assessment of Data

Page: 1 of 1  
Reviewer: LT  
2nd Reviewer: [Signature]

**METHOD:** GC/MS VOA (EPA SW 846 Method 8260C/D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Y  N  N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		2	MMM	DL higher result	DNR ↓
		3	LL, TT, L	original run lower PL	
		4	MMM	DL higher result	
		5	LL, TT, L	original run lower PL	

Comments: \_\_\_\_\_  
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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Lead  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906232

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-15-10.5	906232-02	Soil	06/12/19
MW-15-13	906232-03	Soil	06/12/19
B-07-8	906232-07	Soil	06/12/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for the Evaluation of Lead for the Contract Laboratory Program*, SOP HW-2b, Revision 15 (December 2012), and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Lead by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

ICP-MS tune data were not reviewed for Stage 2A validation.

## **III. Instrument Calibration**

Instrument performance check data were not reviewed for Stage 2A validation.

## **IV. ICP Interference Check Sample Analysis**

Interference check sample (ICS) analysis data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Serial Dilution**

Serial dilution was not performed for this SDG.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

No field duplicates were identified in this SDG.

## **XII. Internal Standards (ICP-MS)**

Internal standard data were not reviewed for Stage 2A validation.

## **XIII. Sample Result Verification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Lead - Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Laboratory Blank Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Field Blank Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

LDC #: 45754C4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 906232

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: L7

2nd Reviewer: [Signature]

**METHOD:** Lead (EPA SW 846 Method 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	ICP/MS Tune	N	
III.	Instrument Calibration	N	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Laboratory Blanks	A	
VI.	Field Blanks	N	
VII.	Matrix Spike/Matrix Spike Duplicates	A	SDG 906200
VIII.	Duplicate sample analysis	N	
IX.	Serial Dilution	N	
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	N	
XII.	Internal Standard (ICP-MS)	N	
XIII.	Sample Result Verification	N	
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-15-10.5	906232-02	Soil	06/12/19
2	MW-15-13	906232-03	Soil	06/12/19
3	B-07-8	906232-07	Soil	06/12/19
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12				

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 906232

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-15-7.5	906232-01	Soil	06/12/19
MW-15-10.5	906232-02	Soil	06/12/19
MW-15-13	906232-03	Soil	06/12/19
MW-15-25	906232-05	Soil	06/12/19
B-07-8	906232-07	Soil	06/12/19
B-07-12.5	906232-08	Soil	06/12/19
MW-15-17.5	906232-04	Soil	06/12/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## V. Field Blanks

No field blanks were identified in this SDG.

## VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Compound	Flag	A or P
MW-15-10.5	Bromobenzene	218 (50-150)	All compounds	J (all detects)	P
B-07-8	Bromobenzene	251 (50-150)	All compounds	J (all detects)	P

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method.

Due to surrogate %R, data were qualified as estimated in two samples.

No results were rejected in this SDG.

**Aloha Café**  
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 906232**

Sample	Compound	Flag	A or P	Reason
MW-15-10.5 B-07-8	All compounds	J (all detects)	P	Surrogates (%R)

**Aloha Café**  
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

LDC #: 45754C7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 906232

Level II

Page: (of )

Laboratory: Friedman & Bruya, Inc.

Reviewer:   

2nd Reviewer:   

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	Non client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-15-7.5	906232-01	Soil	06/12/19
2	MW-15-10.5	906232-02	Soil	06/12/19
3	MW-15-13	906232-03	Soil	06/12/19
4	MW-15-25	906232-05	Soil	06/12/19
5	B-07-8	906232-07	Soil	06/12/19
6	B-07-12.5	906232-08	Soil	06/12/19
7	MW-15-17.5	↓ 04	↓	↓
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Notes:

1	09-1405 MB				



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Diesel & Motor Oil  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906232

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-15-7.5	906232-01	Soil	06/12/19
MW-15-10.5	906232-02	Soil	06/12/19
MW-15-13	906232-03	Soil	06/12/19
MW-15-25	906232-05	Soil	06/12/19
B-07-8	906232-07	Soil	06/12/19
B-07-12.5	906232-08	Soil	06/12/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Data Qualification  
Summary - SDG 906232**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Laboratory Blank Data  
Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Field Blank Data  
Qualification Summary - SDG 906232**

No Sample Data Qualified in this SDG

LDC #: 45754C8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/17

SDG #: 906232

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

and Motor Oil

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-15-7.5	906232-01	Soil	06/12/19
2	MW-15-10.5	906232-02	Soil	06/12/19
3	MW-15-13	906232-03	Soil	06/12/19
4	MW-15-25	906232-05	Soil	06/12/19
5	B-07-8	906232-07	Soil	06/12/19
6	B-07-12.5	906232-08	Soil	06/12/19
7	MW-15-17.5	↓ -04	↓	↓
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11				

Notes:


**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906279

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-17-8.5	906279-02	Soil	06/14/19
MW-16-7.5	906279-07	Soil	06/14/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
906279**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 906279**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 906279**

No Sample Data Qualified in this SDG

LDC #: 45754D7

# VALIDATION COMPLETENESS WORKSHEET

Date: 09/04/19

SDG #: 906279

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-17-8.5	906279-02	Soil	06/14/19
2	MW-16-7.5	906279-07	Soil	06/14/19
3				
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Notes:


**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Diesel & Motor Oil  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 906279

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-17-8.5	906279-02	Soil	06/14/19
MW-16-7.5	906279-07	Soil	06/14/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Data Qualification  
Summary - SDG 906279**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Laboratory Blank Data  
Qualification Summary - SDG 906279**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Field Blank Data  
Qualification Summary - SDG 906279**

No Sample Data Qualified in this SDG

LDC #: 45754D8

# VALIDATION COMPLETENESS WORKSHEET

Date: 09/04/19

SDG #: 906279

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel <sup>and Motor oil</sup> (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-17-8.5	906279-02	Soil	06/14/19
2	MW-16-7.5	906279-07	Soil	06/14/19
3				
4				
5				
6				
7				
8				
9				
10				
11				

Notes:


## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 907276

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18-10	907276-03	Soil	07/15/19
B-08-13.5	907276-08	Soil	07/16/19
MW-19-8.5	907276-12	Soil	07/16/19
Dup-2	907276-16	Soil	07/16/19
MW-19-8.5MS	907276-12MS	Soil	07/16/19
MW-19-8.5MSD	907276-12MSD	Soil	07/16/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples MW-19-8.5 and Dup-2 were identified as field duplicates. No results were detected in any of the samples.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

LDC #: 45754E1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 907276

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: 

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	(5,6)
IX.	Laboratory control samples	A	LC5
X.	Field duplicates	ND	D = 3+4
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18-10	907276-03	Soil	07/15/19
2	B-08-13.5	907276-08	Soil	07/16/19
3	MW-19-8.5	907276-12	Soil	07/16/19
4	Dup-2	907276-16	Soil	07/16/19
5	MW-19-8.5MS	907276-12MS	Soil	07/16/19
6	MW-19-8.5MSD	907276-12MSD	Soil	07/16/19
7				
8				

Notes:


## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 907276

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-18-10	907276-03	Soil	07/15/19
B-08-13.5	907276-08	Soil	07/16/19
MW-19-8.5	907276-12	Soil	07/16/19
Dup-2	907276-16	Soil	07/16/19
Trip Blank	907276-17	Water	07/16/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-19-8.5 and Dup-2 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
907276**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 907276**

No Sample Data Qualified in this SDG

LDC #: 45754E7

# VALIDATION COMPLETENESS WORKSHEET

Date: 07/01/19

SDG #: 907276

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB = 5
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 3+4
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18-10	907276-03	Soil	07/15/19
2	B-08-13.5	907276-08	Soil	07/16/19
3	MW-19-8.5	907276-12	Soil	07/16/19
4	Dup-2	907276-16	Soil	07/16/19
5	Trip Blank	907276-17	Water	07/16/19
6				
7				
8				
9				
10				
11				

Notes:


**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Total Petroleum Hydrocarbons as Diesel & Motor Oil  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 907276

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-18-10	907276-03	Soil	07/15/19
B-08-13.5	907276-08	Soil	07/16/19
MW-19-8.5	907276-12	Soil	07/16/19
Dup-2	907276-16	Soil	07/16/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-19-8.5 and Dup-2 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Data Qualification  
Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Laboratory Blank Data  
Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Field Blank Data  
Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

LDC #: 45754E8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 907276

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 3+4
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18-10	907276-03	Soil	07/15/19
2	B-08-13.5	907276-08	Soil	07/16/19
3	MW-19-8.5	907276-12	Soil	07/16/19
4	Dup-2	907276-16	Soil	07/16/19
5				
6				
7				
8				
9				
10				
11				

Notes:


## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 9, 2019  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 907276

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-18-10	907276-03	Soil	07/15/19
B-08-13.5	907276-08	Soil	07/16/19
MW-19-8.5	907276-12	Soil	07/16/19
Dup-2	907276-16	Soil	07/16/19
Trip Blank	907276-17	Water	07/16/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) which are Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by Environmental Protection Agency (EPA) SW 846 Method 8021B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-19-8.5 and Dup-2 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 907276**

No Sample Data Qualified in this SDG

LDC #: 45754E23

# VALIDATION COMPLETENESS WORKSHEET

Date: 09/04/19

SDG #: 907276

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC Volatiles (BTEX) (EPA SW 846 Method 8021B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N, N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB = 5
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LC5
IX.	Field duplicates	ND	D = 3+4
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18-10	907276-03	Soil	07/15/19
2	B-08-13.5	907276-08	Soil	07/16/19
3	MW-19-8.5	907276-12	Soil	07/16/19
4	Dup-2	907276-16	Soil	07/16/19
5	Trip Blank	907276-17	Water	07/16/19
6				
7				
8				
9				
10				
11				

Notes:


## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 908023

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16-073119	908023-01	Water	07/31/19
MW-18-073119	908023-02	Water	07/31/19
MW-14-073119	908023-03	Water	07/31/19
MW-14-073119DL	908023-03DL	Water	07/31/19
MW-13-073119	908023-04	Water	07/31/19
Dup-01-073119	908023-05	Water	07/31/19
Dup-01-073119DL	908023-05DL	Water	07/31/19
MW-17-073119	908023-06	Water	07/31/19
MW-19-073119	908023-07	Water	07/31/19
MW-7-073119	908023-08	Water	07/31/19
MW-11-073119	908023-09	Water	07/31/19
MW-11-073119DL	908023-09DL	Water	07/31/19
MW-6-073119	908023-10	Water	07/31/19
MW-12-080119	908023-11	Water	08/01/19
MW-2-080119	908023-12	Water	08/01/19
MW-10-080119	908023-13	Water	08/01/19
MW-10-080119DL	908023-13DL	Water	08/01/19
MW-9-080119	908023-14	Water	08/01/19
Rinse Blank-080119	908023-15	Water	08/01/19
MW-1-080119	908023-16	Water	08/01/19
MW-1-080119DL	908023-16DL	Water	08/01/19
Trip Blank	908023-17	Water	08/01/19
MW-12-080119MS	908023-11MS	Water	08/01/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

Sample Rinse Blank-080119 was identified as a rinsate blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples MW-14-073119 and Dup-01-073119 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	MW-14-073119	Dup-01-073119			
Vinyl chloride	2.7	2.8	4 (≤35)	-	-
Toluene	32	45	34 (≤35)	-	-
m,p-Xylenes	72	120	50 (≤35)	J (all detects)	A
o-Xylene	18	25	33 (≤35)	-	-
Naphthalene	50	77	43 (≤35)	J (all detects)	A

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	MW-14-073119	Dup-01-073119DL			
Ethylbenzene	130	170	27 (≤35)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	MW-14-073119DL	Dup-01-073119DL			
Benzene	2400	3500	37 (≤35)	J (all detects)	A

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Finding	Flag	A or P
MW-14-073119	Benzene	Results exceeded calibration range.	DNR	-
MW-14-073119DL	All compounds except Benzene	Results from undiluted analyses were more usable.	DNR	-
Dup-01-073119	Benzene Ethylbenzene	Results exceeded calibration range.	DNR	-
Dup-01-073119DL	All compounds except Benzene Ethylbenzene	Results from undiluted analyses were more usable.	DNR	-
MW-11-073119 MW-1-080119	Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene	Results exceeded calibration range.	DNR	-
MW-11-073119DL MW-1-080119DL	All compounds except Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene	Results from undiluted analyses were more usable.	DNR	-
MW-10-080119	Benzene Ethylbenzene m,p-Xylenes Naphthalene	Results exceeded calibration range.	DNR	-
MW-10-080119DL	All compounds except Benzene Ethylbenzene m,p-Xylenes Naphthalene	Results from undiluted analyses were more usable.	DNR	-

Due to field duplicate RPD, data were qualified as estimated in two samples.

No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 908023**

Sample	Compound	Flag	A or P	Reason
MW-14-073119 Dup-01-073119	m,p-Xylenes Naphthalene	J (all detects) J (all detects)	A	Field duplicates (RPD)
MW-14-073119DL Dup-01-073119DL	Benzene	J (all detects)	A	Field duplicates (RPD)
MW-14-073119	Benzene	DNR	-	Overall assessment of data
MW-14-073119DL	All compounds except Benzene	DNR	-	Overall assessment of data
Dup-01-073119	Benzene Ethylbenzene	DNR	-	Overall assessment of data
Dup-01-073119DL	All compounds except Benzene Ethylbenzene	DNR	-	Overall assessment of data
MW-11-073119 MW-1-080119	Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene	DNR	-	Overall assessment of data
MW-11-073119DL MW-1-080119DL	All compounds except Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene	DNR	-	Overall assessment of data
MW-10-080119	Benzene Ethylbenzene m,p-Xylenes Naphthalene	DNR	-	Overall assessment of data
MW-10-080119DL	All compounds except Benzene Ethylbenzene m,p-Xylenes Naphthalene	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 22 RB = 19
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	(23) M5 only
IX.	Laboratory control samples	A	LC5/D
X.	Field duplicates	SW	D = 3+6, 4+7, 3+7
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SW	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-16-073119	908023-01	Water	07/31/19
2	MW-18-073119	908023-02	Water	07/31/19
3	MW-14-073119	908023-03	Water	07/31/19
4	MW-14-073119 <i>RE DL</i>	908023-03 <i>RE DL</i>	Water	07/31/19
5	MW-13-073119	908023-04	Water	07/31/19
6	Dup-01-073119	908023-05	Water	07/31/19
7	Dup-01-073119 <i>RE DL</i>	908023-05 <i>RE DL</i>	Water	07/31/19
8	MW-17-073119	908023-06	Water	07/31/19
9	MW-19-073119	908023-07	Water	07/31/19
10	MW-7-073119	908023-08	Water	07/31/19
11	MW-11-073119	908023-09	Water	07/31/19
12	MW-11-073119 <i>RE DL</i>	908023-09 <i>RE DL</i>	Water	07/31/19
13	MW-6-073119	908023-10	Water	07/31/19

LDC #: 45754F1a

# VALIDATION COMPLETENESS WORKSHEET

Date: 09/04/19

SDG #: 908023

Level II

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260C)

14	MW-12-080119	908023-11	Water	08/01/19
15	MW-2-080119	908023-12	Water	08/01/19
16	MW-10-080119	908023-13	Water	08/01/19
17	MW-10-080119 <i>REDL</i>	908023-13 <i>REDL</i>	Water	08/01/19
18	MW-9-080119	908023-14	Water	08/01/19
19	Rinse Blank-080119	908023-15	Water	08/01/19
20	MW-1-080119	908023-16	Water	08/01/19
21	MW-1-080119 <i>REDL</i>	908023-16 <i>REDL</i>	Water	08/01/19
22	Trip Blank	908023-17	Water	08/01/19
23	MW-12-080119MS	908023-11MS	Water	08/01/19
24				
25				
26				

Notes:

1	09-1853 MB				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff
	3	6		
C	2.7	2.8	4	
CC	32	45	34	
RRR	72	120	50	
SSS	18	25	33	
MMM	50	77	43	

*5 delta*  
*5 delta*

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff
	3	7		
EE	130	170	27	

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff
	4	7		
V	2400	3500	37	

*5 delta*

**VALIDATION FINDINGS WORKSHEET**  
**Overall Assessment of Data**

**METHOD:** GC/MS VOA (EPA SW 846 Method 8260C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		3	✓	x'd cal range	DNR ↓ ✓
		4	All except ✓	diluted	
		6	V & EE	x'd cal range	
		7	All except V & EE	diluted	
		11, 20	V, CC, EE, PRR, SSS	x'd cal range	
		12, 21	All except V, CC, EE, PRR, SSS	diluted	
		16	V, EE, PRR, MMM	x'd cal range	
		17	All except V, EE, PRR, MMM	diluted	

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Lead

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 908023

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16-073119	908023-01	Water	07/31/19
MW-18-073119	908023-02	Water	07/31/19
MW-14-073119	908023-03	Water	07/31/19
MW-13-073119	908023-04	Water	07/31/19
Dup-01-073119	908023-05	Water	07/31/19
MW-17-073119	908023-06	Water	07/31/19
MW-19-073119	908023-07	Water	07/31/19
MW-7-073119	908023-08	Water	07/31/19
MW-11-073119	908023-09	Water	07/31/19
MW-6-073119	908023-10	Water	07/31/19
MW-12-080119	908023-11	Water	08/01/19
MW-2-080119	908023-12	Water	08/01/19
MW-10-080119	908023-13	Water	08/01/19
MW-9-080119	908023-14	Water	08/01/19
Rinse Blank-080119	908023-15	Water	08/01/19
MW-1-080119	908023-16	Water	08/01/19
MW-16-073119MS	908023-01MS	Water	07/31/19
MW-16-073119MSD	908023-01MSD	Water	07/31/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for the Evaluation of Lead for the Contract Laboratory Program*, SOP HW-2b, Revision 15 (December 2012), and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Lead by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

ICP-MS tune data were not reviewed for Stage 2A validation.

## **III. Instrument Calibration**

Instrument performance check data were not reviewed for Stage 2A validation.

## **IV. ICP Interference Check Sample Analysis**

Interference check sample (ICS) analysis data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Rinse Blank-080119 was identified as a rinsate blank. No contaminants were found.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	Flag	A or P
MW-16-073119MS/MSD (MW-16-073119 MW-18-073119 MW-14-073119 MW-13-073119 Dup-01-073119 MW-17-073119 MW-19-073119 MW-7-073119 MW-11-073119 MW-6-073119 MW-12-080119 MW-2-080119 MW-10-080119 MW-9-080119 MW-1-080119)	Lead	68 (75-125)	68 (75-125)	J (all detects) UJ (all non-detects)	A

Relative percent differences (RPD) were within QC limits.

## VIII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## IX. Serial Dilution

Serial dilution was not performed for this SDG.

## X. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## XI. Field Duplicates

Samples MW-14-073119 and Dup-01-073119 were identified as field duplicates. No results were detected in any of the samples.

## XII. Internal Standards (ICP-MS)

Internal standard data were not reviewed for Stage 2A validation.

### **XIII. Sample Result Verification**

Raw data were not reviewed for Stage 2A validation.

### **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS/MSD %R, data were qualified as estimated in fifteen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

**Aloha Café**  
**Lead - Data Qualification Summary - SDG 908023**

Sample	Analyte	Flag	A or P	Reason
MW-16-073119 MW-18-073119 MW-14-073119 MW-13-073119 Dup-01-073119 MW-17-073119 MW-19-073119 MW-7-073119 MW-11-073119 MW-6-073119 MW-12-080119 MW-2-080119 MW-10-080119 MW-9-080119 MW-1-080119	Lead	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)

**Aloha Café**  
**Lead - Laboratory Blank Data Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Field Blank Data Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG

LDC #: 45754F4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

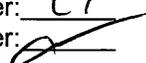
SDG #: 908023

Level II

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: CT

2nd Reviewer: **METHOD:** Lead (EPA SW 846 Method 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	ICP/MS Tune	N	
III.	Instrument Calibration	N	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Laboratory Blanks	A	
VI.	Field Blanks	ND	PB = 15
VII.	Matrix Spike/Matrix Spike Duplicates	SW	(17,18)
VIII.	Duplicate sample analysis	N	
IX.	Serial Dilution	N	
X.	Laboratory control samples	A	LC5
XI.	Field Duplicates	ND	D = 3 + 5
XII.	Internal Standard (ICP-MS)	N	
XIII.	Sample Result Verification	N	
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-16-073119	908023-01	Water	07/31/19
2	MW-18-073119	908023-02	Water	07/31/19
3	MW-14-073119	908023-03	Water	07/31/19
4	MW-13-073119	908023-04	Water	07/31/19
5	Dup-01-073119	908023-05	Water	07/31/19
6	MW-17-073119	908023-06	Water	07/31/19
7	MW-19-073119	908023-07	Water	07/31/19
8	MW-7-073119	908023-08	Water	07/31/19
9	MW-11-073119	908023-09	Water	07/31/19
10	MW-6-073119	908023-10	Water	07/31/19
11	MW-12-080119	908023-11	Water	08/01/19
12	MW-2-080119	908023-12	Water	08/01/19
13	MW-10-080119	908023-13	Water	08/01/19
14	MW-9-080119	908023-14	Water	08/01/19
15	Rinse Blank-080119	908023-15	Water	08/01/19



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 908023

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16-073119	908023-01	Water	07/31/19
MW-18-073119	908023-02	Water	07/31/19
MW-14-073119	908023-03	Water	07/31/19
MW-13-073119	908023-04	Water	07/31/19
Dup-01-073119	908023-05	Water	07/31/19
MW-17-073119	908023-06	Water	07/31/19
MW-19-073119	908023-07	Water	07/31/19
MW-7-073119	908023-08	Water	07/31/19
MW-11-073119	908023-09	Water	07/31/19
MW-6-073119	908023-10	Water	07/31/19
MW-12-080119	908023-11	Water	08/01/19
MW-2-080119	908023-12	Water	08/01/19
MW-10-080119	908023-13	Water	08/01/19
MW-9-080119	908023-14	Water	08/01/19
Rinse Blank-080119	908023-15	Water	08/01/19
MW-1-080119	908023-16	Water	08/01/19
Trip Blank	908023-17	Water	08/01/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

Sample Rinse Blank-080119 was identified as a rinsate blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### IX. Field Duplicates

Samples MW-14-073119 and Dup-01-073119 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)
	MW-14-073119	Dup-01-073119	
Gasoline range	7500	9700	26 ( $\leq 35$ )

### X. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

### XI. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

### XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
908023**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 908023**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 908023**

No Sample Data Qualified in this SDG

LDC #: 45754F7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/04/19

SDG #: 908023

Level II

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: LT

2nd Reviewer: **METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	PB = 15 TB = 17
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non Client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 3+5
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB = Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-16-073119	908023-01	Water	07/31/19
2	MW-18-073119	908023-02	Water	07/31/19
3	MW-14-073119	908023-03	Water	07/31/19
4	MW-13-073119	908023-04	Water	07/31/19
5	Dup-01-073119	908023-05	Water	07/31/19
6	MW-17-073119	908023-06	Water	07/31/19
7	MW-19-073119	908023-07	Water	07/31/19
8	MW-7-073119	908023-08	Water	07/31/19
9	MW-11-073119	908023-09	Water	07/31/19
10	MW-6-073119	908023-10	Water	07/31/19
11	MW-12-080119	908023-11	Water	08/01/19
12	MW-2-080119	908023-12	Water	08/01/19
13	MW-10-080119	908023-13	Water	08/01/19
14	MW-9-080119	908023-14	Water	08/01/19
15	Rinse Blank-080119	908023-15	Water	08/01/19
16	MW-1-080119	908023-16	Water	08/01/19
17	Trip Blank	908023-17	Water	08/01/19

LDC#: 45754F7

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff
	3	5		
Gasoline Range	7500	9700	26	

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 9, 2019

**Parameters:** Total Petroleum Hydrocarbons as Diesel & Motor Oil

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 908023

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16-073119	908023-01	Water	07/31/19
MW-18-073119	908023-02	Water	07/31/19
MW-14-073119	908023-03	Water	07/31/19
MW-13-073119	908023-04	Water	07/31/19
Dup-01-073119	908023-05	Water	07/31/19
MW-17-073119	908023-06	Water	07/31/19
MW-19-073119	908023-07	Water	07/31/19
MW-7-073119	908023-08	Water	07/31/19
MW-11-073119	908023-09	Water	07/31/19
MW-6-073119	908023-10	Water	07/31/19
MW-12-080119	908023-11	Water	08/01/19
MW-2-080119	908023-12	Water	08/01/19
MW-10-080119	908023-13	Water	08/01/19
MW-9-080119	908023-14	Water	08/01/19
Rinse Blank-080119	908023-15	Water	08/01/19
MW-1-080119	908023-16	Water	08/01/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Semivolatile Data Validation*, SOP HW-35A, Revision 0 (June 2015), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel and Motor Oil by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## V. Field Blanks

Sample Rinse Blank-080119 was identified as a rinsate blank. No contaminants were found.

## VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Compound	Flag	A or P
Rinse Blank-080119	Ortho-Terphenyl	142 (47-140)	All compounds	NA	-

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

### IX. Field Duplicates

Samples MW-14-073119 and Dup-01-073119 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-14-073119	Dup-01-073119		
Diesel range	1200	1100	9 (≤35)	-
Motor oil range	330	270	-	60 (≤500)

### X. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

### XI. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

### XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Data Qualification  
Summary - SDG 908023**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Laboratory Blank Data  
Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel and Motor Oil - Field Blank Data  
Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG



LDC#:45754F8

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: LT  
2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel and Motor Oil (NWTPH-Dx)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff ( $\leq 500$ )
	3	5		
Diesel Range	1200	1100	9	
Motor Oil Range	330	270		60



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

October 2, 2019

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed is the final validation report for the fraction listed below. This SDG was received on September 3, 2019. Attachment 1 is a summary of the samples that were reviewed for analysis.

### **LDC Project #45879:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
907561	Volatiles

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Analysis Of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6; September 2016
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

Please feel free to contact us if you have any questions.

Sincerely,

*Christina Rink*

Christina Rink  
[crink@lab-data.com](mailto:crink@lab-data.com)  
Project Manager/Senior Chemist



**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 24, 2019  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 907561

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-01-072519	907561-01	Air	07/25/19
GP-02-072519	907561-02	Air	07/25/19
GP-03-072519	907561-03	Air	07/25/19
Dup-1-072519	907561-04	Air	07/25/19
GP-04-072519	907561-05	Air	07/25/19
SVS-02-072519	907561-06	Air	07/25/19
SVS-01-072519	907561-07	Air	07/25/19
Trip Blank	907561-08	Air	07/25/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were not required by the method.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples GP-03-072519 and Dup-1-072519 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Flag	A or P
	GP-03-072519	Dup-1-072519			
Benzene	3.9	3.4	14 (≤35)	-	-
Toluene	17	15	13 (≤35)	-	-
Ethylbenzene	4.9	3.9	23 (≤35)	-	-
m,p-Xylene	19	15	24 (≤35)	-	-
o-Xylene	8.1	6.5	22 (≤35)	-	-

## XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 907561**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 907561**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 907561**

No Sample Data Qualified in this SDG

LDC #: 45879A48a  
 SDG #: 907561  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 07/24/19  
 Page: 1 of 1  
 Reviewer: LT  
 2nd Reviewer: KR

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N, N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks/Canister Blanks	A/A	individually certified
VI.	Field blanks	ND	TB = 8
VII.	Surrogate spikes	N	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 4 + 3
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-01-072519	907561-01	Air	07/25/19
2	GP-02-072519	907561-02	Air	07/25/19
3	GP-03-072519	907561-03	Air	07/25/19
4	Dup-1-072519	907561-04	Air	07/25/19
5	GP-04-072519	907561-05	Air	07/25/19
6	SVS-02-072519	907561-06	Air	07/25/19
7	SVS-01-072519	907561-07	Air	07/25/19
8	Trip Blank	907561-08	Air	07/25/19
9				

Notes:


## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

Compound	Concentration (ug/m3)		RPD ( $\leq 35$ )	Qual
	3	4		
V	3.9	3.4	14	
CC	17	15	13	
EE	4.9	3.9	23	
RRR	19	15	24	
SSS	8.1	6.5	22	

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 24, 2019

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 907561

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-01-072519	907561-01	Air	07/25/19
GP-02-072519	907561-02	Air	07/25/19
GP-03-072519	907561-03	Air	07/25/19
GP-03-072519DL	907561-03DL	Air	07/25/19
Dup-1-072519	907561-04	Air	07/25/19
Dup-1-072519DL	907561-04DL	Air	07/25/19
GP-04-072519	907561-05	Air	07/25/19
SVS-02-072519	907561-06	Air	07/25/19
SVS-02-072519DL	907561-06DL	Air	07/25/19
SVS-01-072519	907561-07	Air	07/25/19
Trip Blank	907561-08	Air	07/25/19
GP-01-072519DUP	907561-01DUP	Air	07/25/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analysis Date	Compound	Concentration	Associated Samples
09-1852 MB	08/02/19	APH EC9-12 aliphatics	37 ug/m <sup>3</sup>	GP-01-072519 GP-02-072519 GP-03-072519 Dup-1-072519 GP-04-072519 SVS-02-072519 SVS-01-072519 Trip Blank

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated laboratory blanks.

## VI. Field Blanks

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## VII. Surrogates

Surrogates were not required by the method.

### VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### X. Field Duplicates

Samples GP-03-072519 and Dup-1-072519 and samples GP-03-072519DL and Dup-1-072519DL were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Flag	A or P
	GP-03-072519DL	Dup-1-072519DL			
APH EC5-8 aliphatics	8700	9100	4 (≤35)	-	-
APH EC9-12 aliphatics	9600	11000	14 (≤35)	-	-

### XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

### XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

### XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

### XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

### XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Reason	Flag	A or P
GP-03-072519 Dup-1-072519 SVS-02-072519	APH EC5-8 aliphatics	Results exceeded calibration range.	DNR	-
GP-03-072519 Dup-1-072519	APH EC9-12 aliphatics	Results from diluted analyses were more usable.	DNR	-
GP-03-072519DL Dup-1-072519DL	APH EC9-10 aromatics	Results from undiluted analyses were more usable.	DNR	-
SVS-02-072519DL	APH EC9-12 aliphatics APH EC9-10 aromatics	Results from undiluted analyses were more usable.	DNR	-

No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 907561**

Sample	Compound	Flag	A or P	Reason
GP-03-072519 Dup-1-072519 SVS-02-072519	APH EC5-8 aliphatics	DNR	-	Overall assessment of data
GP-03-072519 Dup-1-072519	APH EC9-12 aliphatics	DNR	-	Overall assessment of data
GP-03-072519DL Dup-1-072519DL	APH EC9-10 aromatics	DNR	-	Overall assessment of data
SVS-02-072519DL	APH EC9-12 aliphatics APH EC9-10 aromatics	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 907561**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 907561**

No Sample Data Qualified in this SDG

LDC #: 45879A48b  
 SDG #: 907561  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 07/24/19  
 Page: 1 of 1  
 Reviewer: LT  
 2nd Reviewer: KAC

**METHOD:** GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N, N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks/Canister Blanks	SA/A	Individually certified
VI.	Field blanks	ND	TB = 11
VII.	Surrogate spikes	N	
VIII.	Matrix spike/Matrix spike duplicates	DVP N / A	(12)
IX.	Laboratory control samples	A	L 95
X.	Field duplicates	SW	D = 3 + 5, 4 + 6
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	SA	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-01-072519	907561-01	Air	07/25/19
2	GP-02-072519	907561-02	Air	07/25/19
3	GP-03-072519	907561-03	Air	07/25/19
4	GP-03-072519 <del>RE DL</del>	907561-03 <del>RE DL</del>	Air	07/25/19
5	Dup-1-072519	907561-04	Air	07/25/19
6	Dup-1-072519 <del>RE DL</del>	907561-04 <del>RE DL</del>	Air	07/25/19
7	GP-04-072519	907561-05	Air	07/25/19
8	SVS-02-072519	907561-06	Air	07/25/19
9	SVS-02-072519 <del>RE DL</del>	907561-06 <del>RE DL</del>	Air	07/25/19
10	SVS-01-072519	907561-07	Air	07/25/19
11	Trip Blank	907561-08	Air	07/25/19
12	GP-01-072519 DUP	907561-01 DUP	Air	07/25/19

**VALIDATION FINDINGS WORKSHEET**

**Blanks**

**METHOD:** GC/MS VOA (MA-APH)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N N/A Was a method blank associated with every sample in this SDG?
- N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
- N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 08/02/19

Conc. units: ug/m<sup>3</sup>

Associated Samples: 1-3,5,7,8,10,11 > CRDL or ND

Compound	Blank ID	Sample Identification							
	<u>09-1852 mb</u>								
Methylene chloride									
Acetone									
<del>APH EC9-10</del>									
<u>APH EC9-12 aliphatics</u>	<u>37</u>								

Blank analysis date: \_\_\_\_\_

Conc. units: \_\_\_\_\_

Associated Samples: \_\_\_\_\_

Compound	Blank ID	Sample Identification							
Methylene chloride									
Acetone									

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

**VALIDATION FINDINGS WORKSHEET**  
Field Duplicates

**METHOD:** GC/MS Volatiles (MA-APH)

Compound	Concentration (ug/m3)		RPD ( $\leq 35$ )	Qual
	4	6		
APH EC5-8 aliphatics	8700	9100	4	
APH EC9-12 aliphatics	9600	11000	14	

**VALIDATION FINDINGS WORKSHEET**  
**Overall Assessment of Data**

**METHOD:** GC/MS VOA (MA-APH)

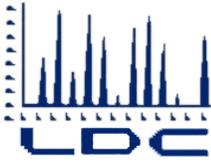
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		3, 5, 8	APH EC5-8 aliphatics	xd cal range	DNR ↓
		3, 5	APH EC9-12 aliphatics	biased low results, DL results are more acceptable	
		β 4, 6	APH EC9-10 aromatics	diluted	
		9	APH EC9-12 aliphatics & APH EC9-10 aromatics	↓	

Comments: \_\_\_\_\_



## LABORATORY DATA CONSULTANTS, INC.

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Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

January 6, 2020

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 9, 2019. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #46741:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
911310	Volatiles, Lead, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Diesel

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C, SOP HW-24, Revision 4; October 2014
- USEPA Region 2 Standard Operating Procedure for the Evaluation of Lead for the Contract Laboratory Program, SOP HW-2b, Revision 15; December 2012
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review; January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink  
[crink@lab-data.com](mailto:crink@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** January 3, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 911310

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-112019	911310-01	Water	11/20/19
MW-2-112019	911310-02	Water	11/20/19
MW-6-112019	911310-03	Water	11/20/19
MW-7-111919	911310-04	Water	11/19/19
MW-9-112019	911310-05	Water	11/20/19
MW-10-112019	911310-06	Water	11/20/19
MW-11-111919	911310-07	Water	11/19/19
MW-12-112019	911310-08	Water	11/20/19
MW-13-112019	911310-09	Water	11/20/19
MW-14-112019	911310-10	Water	11/20/19
MW-16-111919	911310-11	Water	11/19/19
MW-17-111919	911310-12	Water	11/19/19
MW-18-111919	911310-13	Water	11/19/19
MW-18-112019DL	911310-13RE	Water	11/20/19
MW-19-112019	911310-14	Water	11/20/19
DUP-01-112019	911310-15	Water	11/20/19
Rinseblank-112019	911310-16	Water	11/20/19
Trip blank	911310-17	Water	11/20/19
MW-2-112019MS	911310-02MS	Water	11/20/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip blank was identified as a trip blank. No contaminants were found.

Sample Rinseblank-112019 was identified as a rinse blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples MW-19-112019 and DUP-01-112019 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	MW-19-112019	DUP-01-112019			
Tetrachloroethene	12	15	22 (≤35)	-	-

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Reason	Flag	A or P
MW-18-111919	Benzene	Results exceeded calibration range.	DNR	-
MW-18-112019DL	All compounds except Benzene	Results from undiluted analyses were more usable.	DNR	-

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 911310**

Sample	Compound	Flag	A or P	Reason
MW-18-111919	Benzene	DNR	-	Overall assessment of data
MW-18-112019DL	All compounds except Benzene	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

LDC #: 46741A1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/28/19

SDG #: 911310

Level II

Page: 1 of 2

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	RB = 17 TB = 18
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	(19) - MS only
IX.	Laboratory control samples	A	LCS/D
X.	Field duplicates	SW	D = 16 + 15
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SW	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-112019	911310-01	Water	11/20/19
2	MW-2-112019	911310-02	Water	11/20/19
3	MW-6-112019	911310-03	Water	11/20/19
4	MW-7-112019	911310-04	Water	11/20/19
5	MW-9-112019	911310-05	Water	11/20/19
6	MW-10-112019	911310-06	Water	11/20/19
7	MW-11-112019	911310-07	Water	11/20/19
8	MW-12-112019	911310-08	Water	11/20/19
9	MW-13-112019	911310-09	Water	11/20/19
10	MW-14-112019	911310-10	Water	11/20/19
11	MW-16-112019	911310-11	Water	11/20/19
12	MW-17-112019	911310-12	Water	11/20/19
13	MW-18-112019	911310-13	Water	11/20/19

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

14	MW-18-112019 <del>RE DL</del>	911310-13 <del>RE DL</del>	Water	11/20/19
15	MW-19-112019	911310-14	Water	11/20/19
16	DUP-01-112019	911310-15	Water	11/20/19
17	Rinseblank-112019	911310-16	Water	11/20/19
18	Trip blank	911310-17	Water	11/20/19
19	MW-2-112019MS	911310-02MS	Water	11/20/19
20				
21				
22				

Notes:

1	09-2843 MB				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

LDC#: 46741A1a

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: LT  
2nd Reviewer: [Signature]

**METHOD:** GCMS VOA (EPA Method 8260C)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )
	15	16	
AA	12	15	22



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** January 3, 2020

**Parameters:** Lead

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 911310

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-112019	911310-01	Water	11/20/19
MW-2-112019	911310-02	Water	11/20/19
MW-6-112019	911310-03	Water	11/20/19
MW-7-111919	911310-04	Water	11/19/19
MW-9-112019	911310-05	Water	11/20/19
MW-10-112019	911310-06	Water	11/20/19
MW-11-111919	911310-07	Water	11/19/19
MW-12-112019	911310-08	Water	11/20/19
MW-13-112019	911310-09	Water	11/20/19
MW-14-112019	911310-10	Water	11/20/19
MW-16-111919	911310-11	Water	11/19/19
MW-17-111919	911310-12	Water	11/19/19
MW-18-111919	911310-13	Water	11/19/19
MW-19-112019	911310-14	Water	11/20/19
DUP-01-112019	911310-15	Water	11/20/19
Rinseblank-112019	911310-16	Water	11/20/19
MW-1-112019MS	911310-01MS	Water	11/20/19
MW-1-112019MSD	911310-01MSD	Water	11/20/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for the Evaluation of Lead for the Contract Laboratory Program*, SOP HW-2b, Revision 15 (December 2012), and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Lead by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

ICP-MS tune data were not reviewed for Stage 2A validation.

## **III. Instrument Calibration**

Instrument performance check data were not reviewed for Stage 2A validation.

## **IV. ICP Interference Check Sample Analysis**

Interference check sample (ICS) analysis data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Rinseblank-112019 was identified as a rinse blank. No contaminants were found.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Serial Dilution**

Serial dilution was not performed for this SDG.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **XI. Field Duplicates**

Samples MW-19-112019 and DUP-01-112019 were identified as field duplicates. No results were detected in any of the samples.

## **XII. Internal Standards (ICP-MS)**

Internal standard data were not reviewed for Stage 2A validation.

## **XIII. Sample Result Verification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Lead - Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Laboratory Blank Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Lead - Field Blank Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

LDC #: 46741A4a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/14/19

SDG #: 911310

Level II

Page: 1 of 2

Laboratory: Friedman & Bruya, Inc.

Reviewer: DTM

2nd Reviewer:

**METHOD:** Lead (EPA SW 846 Method 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	ICP/MS Tune	N	
III.	Instrument Calibration	N	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Laboratory Blanks	A	
VI.	Field Blanks	AND RB=16	
VII.	Matrix Spike/Matrix Spike Duplicates	A	
VIII.	Duplicate sample analysis	N	
IX.	Serial Dilution	N	
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	ND	(14,15)
XII.	Internal Standard (ICP-MS)	N	
XIII.	Sample Result Verification	N	
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-112019	911310-01	Water	11/20/19
2	MW-2-112019	911310-02	Water	11/20/19
3	MW-6-112019	911310-03	Water	11/20/19
4	MW-7-11 <sup>19</sup> 2019	911310-04	Water	11/20 <sup>19</sup> /19
5	MW-9-112019	911310-05	Water	11/20/19
6	MW-10-112019	911310-06	Water	11/20/19
7	MW-11-11 <sup>19</sup> 2019	911310-07	Water	11/20 <sup>19</sup> /19
8	MW-12-112019	911310-08	Water	11/20/19
9	MW-13-112019	911310-09	Water	11/20/19
10	MW-14-112019	911310-10	Water	11/20/19
11	MW-16-11 <sup>19</sup> 2019	911310-11	Water	11/20 <sup>19</sup> /19
12	MW-17-11 <sup>19</sup> 2019	911310-12	Water	11/20 <sup>19</sup> /19
13	MW-18-11 <sup>19</sup> 2019	911310-13	Water	11/20 <sup>19</sup> /19
14	MW-19-112019	911310-14	Water	11/20/19
15	DUP-01-112019	911310-15	Water	11/20/19

**METHOD:** Lead (EPA SW 846 Method 6020B)

16	Rinseblank	911310-16	Water	11/20/19
17	MW-1-112019MS	911310-01MS	Water	11/20/19
18	MW-1-112019MSD	911310-01MSD	Water	11/20/19
19				
20				
21				

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** January 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 911310

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-112019	911310-01	Water	11/20/19
MW-2-112019	911310-02	Water	11/20/19
MW-6-112019	911310-03	Water	11/20/19
MW-7-111919	911310-04	Water	11/19/19
MW-9-112019	911310-05	Water	11/20/19
MW-10-112019	911310-06	Water	11/20/19
MW-11-111919	911310-07	Water	11/19/19
MW-12-112019	911310-08	Water	11/20/19
MW-13-112019	911310-09	Water	11/20/19
MW-14-112019	911310-10	Water	11/20/19
MW-16-111919	911310-11	Water	11/19/19
MW-17-111919	911310-12	Water	11/19/19
MW-18-111919	911310-13	Water	11/19/19
MW-19-112019	911310-14	Water	11/20/19
DUP-01-112019	911310-15	Water	11/20/19
Rinseblank-112019	911310-16	Water	11/20/19
Trip blank	911310-17	Water	11/20/19
MW-6-112019DUP	911310-03DUP	Water	11/20/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip blank was identified as a trip blank. No contaminants were found.

Sample Rinseblank-112019 was identified as a rinse blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-19-112019 and DUP-01-112019 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
911310**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 911310**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 911310**

No Sample Data Qualified in this SDG

LDC #: 46741A7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/28/19

SDG #: 911310

Level II

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: LT2nd Reviewer: [Signature]**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	RB = 16 TB = 17
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	DUP N/A	(18) - DUP
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 15 + 14
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB = Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-112019	911310-01	Water	11/20/19
2	MW-2-112019	911310-02	Water	11/20/19
3	MW-6-112019	911310-03	Water	11/20/19
4	MW-7-11 <sup>19</sup> <del>20</del> 19	911310-04	Water	11/20 <sup>19</sup> /19
5	MW-9-112019	911310-05	Water	11/20/19
6	MW-10-112019	911310-06	Water	11/20/19
7	MW-11-11 <sup>19</sup> <del>20</del> 19	911310-07	Water	11/20 <sup>19</sup> /19
8	MW-12-112019	911310-08	Water	11/20/19
9	MW-13-112019	911310-09	Water	11/20/19
10	MW-14-112019	911310-10	Water	11/20/19
11	MW-16-11 <sup>19</sup> <del>20</del> 19	911310-11	Water	11/20 <sup>19</sup> /19
12	MW-17-11 <sup>19</sup> <del>20</del> 19	911310-12	Water	11/20 <sup>19</sup> /19
13	MW-18-11 <sup>19</sup> <del>20</del> 19	911310-13	Water	11/20 <sup>19</sup> /19
14	MW-19-112019	911310-14	Water	11/20/19
15	DUP-01-112019	911310-15	Water	11/20/19
16	Rinseblank - 112019	911310-16	Water	11/20/19
17	Trip blank	911310-17	Water	11/20/19

LDC #: 46741A7

# VALIDATION COMPLETENESS WORKSHEET

Date: 12/28/19

SDG #: 911310

Level II

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

18	MW-6-112019DUP	911310-03DUP	Water	11/20/19
19				
20				
21				

Notes:

1	09-2735 MB						

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** January 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Diesel

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 911310

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-112019	911310-01	Water	11/20/19
MW-2-112019	911310-02	Water	11/20/19
MW-6-112019	911310-03	Water	11/20/19
MW-7-111919	911310-04	Water	11/19/19
MW-9-112019	911310-05	Water	11/20/19
MW-10-112019	911310-06	Water	11/20/19
MW-11-111919	911310-07	Water	11/19/19
MW-12-112019	911310-08	Water	11/20/19
MW-13-112019	911310-09	Water	11/20/19
MW-14-112019	911310-10	Water	11/20/19
MW-16-111919	911310-11	Water	11/19/19
MW-17-111919	911310-12	Water	11/19/19
MW-18-111919	911310-13	Water	11/19/19
MW-19-112019	911310-14	Water	11/20/19
DUP-01-112019	911310-15	Water	11/20/19
Rinseblank-112019	911310-16	Water	11/20/19

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Diesel by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Rinseblank-112019 was identified as a rinse blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

Samples MW-19-112019 and DUP-01-112019 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG  
911310**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification  
Summary - SDG 911310**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Diesel - Field Blank Data Qualification  
Summary - SDG 911310**

No Sample Data Qualified in this SDG

LDC #: 46741A8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/28/19

SDG #: 911310

Level II

Page: 1 of 1

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: LT

2nd Reviewer:                     **METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	PB = 16
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS/D
IX.	Field duplicates	ND	D = 15 + 14
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

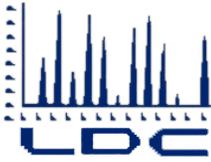
Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-112019	911310-01	Water	11/20/19
2	MW-2-112019	911310-02	Water	11/20/19
3	MW-6-112019	911310-03	Water	11/20/19
4	MW-7-11 <sup>19</sup> <del>20</del> 19	911310-04	Water	11/ <sup>19</sup> <del>20</del> /19
5	MW-9-112019	911310-05	Water	11/20/19
6	MW-10-112019	911310-06	Water	11/20/19
7	MW-11-11 <sup>19</sup> <del>20</del> 19	911310-07	Water	11/ <sup>19</sup> <del>20</del> /19
8	MW-12-112019	911310-08	Water	11/20/19
9	MW-13-112019	911310-09	Water	11/20/19
10	MW-14-112019	911310-10	Water	11/20/19
11	MW-16-11 <sup>19</sup> <del>20</del> 19	911310-11	Water	11/ <sup>19</sup> <del>20</del> /19
12	MW-17-11 <sup>19</sup> <del>20</del> 19	911310-12	Water	11/ <sup>19</sup> <del>20</del> /19
13	MW-18-11 <sup>19</sup> <del>20</del> 19	911310-13	Water	11/ <sup>19</sup> <del>20</del> /19
14	MW-19-112019	911310-14	Water	11/20/19
15	DUP-01-112019	911310-15	Water	11/20/19
16	Rinseblank-11 <sup>19</sup> <del>20</del> 19	911310-16	Water	11/20/19
17				



# LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

October 15, 2020

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on September 8, 2020. Attachment 1 is a summary of the samples that were reviewed for each analysis.

## **LDC Project #49089:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
008318/2008283	Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total
008261	Petroleum Hydrocarbons as Extractables, Helium, Fixed Gases

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C, SOP HW-24, Revision 4; October 2014
- USEPA Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6; September 2016
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink  
[crink@lab-data.com](mailto:crink@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 28, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008318

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SVS-01-082020	008318-01	Air	08/20/20
SVS-02-082020	008318-02	Air	08/20/20
GP-01-082020	008318-03	Air	08/20/20
GP-02-082020	008318-04	Air	08/20/20
GP-03-082020	008318-05	Air	08/20/20
GP-04-082020	008318-06	Air	08/20/20
GP-DUP-082020	008318-07	Air	08/20/20
Trip Blank	008318-08	Air	08/20/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples GP-03-082020 and GP-DUP-082020 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-082020	GP-DUP-082020		
Benzene	5.7	6.4	-	0.7 (≤5.6)
Ethylbenzene	80	60	29 (≤35)	-
m,p-Xylene	300	230	26 (≤35)	-
o-Xylene	82	63	26 (≤35)	-

## XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 008318**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 008318**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 008318**

No Sample Data Qualified in this SDG

LDC #: 49089A48a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 08/19/20

SDG #: 008318

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N, N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks / Canister Blanks	A/A	Individually certified
VI.	Field blanks	ND	TB=8
VII.	Surrogate spikes	A/R	
VIII.	Matrix spike/Matrix spike duplicates	N	Non Client
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D=577
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SVS-01-082020	008318-01	Air	08/20/20
2	SVS-02-082020	008318-02	Air	08/20/20
3	GP-01-082020	008318-03	Air	08/20/20
4	GP-02-082020	008318-04	Air	08/20/20
5	GP-03-082020	D 008318-05	Air	08/20/20
6	GP-04-082020	008318-06	Air	08/20/20
7	GP-DUP-082020	D 008318-07	Air	08/20/20
8	Trip Blank	008318-08	Air	08/20/20
9				
10				

Notes:

1	00-1933MB				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GC/MS VOA (TO-15)

Compound	Concentration (ug/m3)		RPD ( $\leq 35$ )	Diff ( $\leq 5.6$ )
	5	7		
V	5.7	6.4		0.7
EE	80	60	29	
RRR	300	230	26	
SSS	82	63	26	

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 28, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008318

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SVS-01-082020	008318-01	Air	08/20/20
SVS-02-082020	008318-02	Air	08/20/20
GP-01-082020	008318-03	Air	08/20/20
GP-02-082020	008318-04	Air	08/20/20
GP-03-082020	008318-05	Air	08/20/20
GP-03-082020DL	008318-05DL	Air	08/20/20
GP-04-082020	008318-06	Air	08/20/20
GP-DUP-082020	008318-07	Air	08/20/20
GP-DUP-082020DL	008318-07DL	Air	08/20/20
Trip Blank	008318-08	Air	08/20/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## VI. Field Blanks

Sample Trip Blank was identified as a trip blank. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Compound	Concentration	Associated Samples
Trip Blank	08/20/20	APH EC5-8 aliphatics	390 ug/m <sup>3</sup>	SVS-01-082020 SVS-02-082020 GP-01-082020 GP-02-082020 GP-03-082020 GP-03-082020DL GP-04-082020 GP-DUP-082020 GP-DUP-082020DL

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

## VII. Surrogates

Surrogates were not required by the method.

### VIII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### X. Field Duplicates

Samples GP-03-082020 and GP-DUP-082020 and samples GP-03-082020DL and GP-DUP-082020DL were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-082020	GP-DUP-082020		
APH EC9-12 aliphatics	2200	2300	4 (≤35)	-
APH EC9-10 aliphatics	220	220U	-	0 (≤220)

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-082020DL	GP-DUP-082020DL		
APH EC5-8 aliphatics	13000	15000	14 (≤35)	-

### XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

### XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

### XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

### XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Reason	Flag	A or P
GP-03-082020 GP-DUP-082020	APH EC5-8 aliphatics	Results exceeded calibration range.	DNR	-
GP-03-082020DL GP-DUP-082020DL	APH EC9-12 aliphatics APH EC9-10 aromatics	Results from diluted analyses were more usable.	DNR	-

No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 008318**

Sample	Compound	Flag	A or P	Reason
GP-03-082020 GP-DUP-082020	APH EC5-8 aliphatics	DNR	-	Overall assessment of data
GP-03-082020DL GP-DUP-082020DL	APH EC9-12 aliphatics APH EC9-10 aromatics	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 008318**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 008318**

No Sample Data Qualified in this SDG

LDC #: 49089A48b

## VALIDATION COMPLETENESS WORKSHEET

Date: 09/19/20

SDG #: 008318

Stage 2A

Page: ( of )

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N, N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks / <del>Container</del> Blanks	A/A	Individually certified.
VI.	Field blanks	SW	TB=10
VII.	Surrogate spikes	A/N	
VIII.	Matrix spike/Matrix spike duplicates	N	Non client
IX.	Laboratory control samples	A	LES
X.	Field duplicates	SW	D = 5+8, 6+9
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	SW	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	SVS-01-082020	008318-01	Air	08/20/20
2	SVS-02-082020	008318-02	Air	08/20/20
3	GP-01-082020	008318-03	Air	08/20/20
4	GP-02-082020	008318-04	Air	08/20/20
5	GP-03-082020	D 008318-05	Air	08/20/20
6	GP-03-082020 REDL	D 008318-05 REDL	Air	08/20/20
7	GP-04-082020	008318-06	Air	08/20/20
8	GP-DUP-082020	D 008318-07	Air	08/20/20
9	GP-DUP-082020 REDL	D 008318-07 REDL	Air	08/20/20
10	Trip Blank	008318-08	Air	08/20/20
11				
12	1. 00-1933 MB			
13				

**VALIDATION FINDINGS WORKSHEET**

*MA-VPH*

**Field Blanks**

**METHOD:** GC/MS VOA (EPA SW-846 Method 8260B)

Yes  No  N/A  Were field blanks identified in this SDG?

Yes  No  N/A  Were target compounds detected in the field blanks?

**Blank units:** ug/m3 **Associated sample units:** ug/m3

**Sampling date:** 08/20/20

**Field blank type:** (circle one) Field Blank / Rinsate / Trip Blank / Other: TB Associated Samples: 1-9 > CRQL and TB

Compound	Blank ID	Sample Identification							
	10								
APH EC5-8 aliphatics	390								

**Blank units:** \_\_\_\_\_ **Associated sample units:** \_\_\_\_\_

**Sampling date:** \_\_\_\_\_

**Field blank type:** (circle one) Field Blank / Rinsate / Trip Blank / Other: \_\_\_\_\_ Associated Samples: \_\_\_\_\_

Compound	Blank ID	Sample Identification							
Methylene chloride									
Acetone									
Chloroform									

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
 Common contaminants such as Methylene chloride, Acetone, 2-Butanone and Carbon disulfide that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC/MS VOA (MA-APH)

Compound	Concentration (ug/m3)		RPD (≤35)	Diff (≤220)
	5	8		
APH EC9-12 aliphatics	2200	2300	4	
APH EC9-10 aliphatics	220	220U		0

Compound	Concentration (ug/m3)		RPD (≤35)	Diff
	6	9		
APH EC5-8 aliphatics	13000	15000	14	

**VALIDATION FINDINGS WORKSHEET**  
**Overall Assessment of Data**

**METHOD:** GC/MS Volatiles (MA-APH)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Yes  No\_\_ N/A\_\_ Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		5,8	APH EC5-8 aliphatics	exceed calibration range	DNR
		6,9	APH EC9-12 aliphatics and APH EC9-10 aliphatics	diluted	DNR

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 28, 2020

**Parameters:** Helium

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008318/2008283

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SVS-01-082020	008318-01/2008283-001	Air	08/20/20
SVS-02-082020	008318-02/2008283-002	Air	08/20/20
GP-01-082020	008318-03/2008283-003	Air	08/20/20
GP-02-082020	008318-04/2008283-004	Air	08/20/20
GP-03-082020	008318-05/2008283-005	Air	08/20/20
GP-04-082020	008318-06/2008283-006	Air	08/20/20
SVS-01-082020DUP	008318-01/2008283-001DUP	Air	08/20/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Helium by American Society for Testing and Materials (ASTM) D1946

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were not required by the method.

## **VIII. Field Duplicates**

No field duplicates were identified in this SDG.

## **IX. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **X. Target Compound Identification**

Raw data were not reviewed for Stage 2A validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Helium - Data Qualification Summary - SDG 008318/2008283**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Helium - Laboratory Blank Data Qualification Summary - SDG 008318/2008283**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Helium - Field Blank Data Qualification Summary - SDG 008318/2008283**

No Sample Data Qualified in this SDG

LDC #: 49089A50

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/19/20

SDG #: 008318 / 2008283

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC Helium (ASTM D1946)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks / Canister Blanks	A/A	Individually certified
V.	Field blanks	N	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates / DUP	N/A	(7)
VIII.	Laboratory control samples	N	
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Sub Lab ID	Lab ID	Matrix	Date
1	SVS-01-082020	2008283 - 001 /	008318-01	Air	08/20/20
2	SVS-02-082020	- 002 /	008318-02	Air	08/20/20
3	GP-01-082020	- 003 /	008318-03	Air	08/20/20
4	GP-02-082020	- 004 /	008318-04	Air	08/20/20
5	GP-03-082020	- 005 /	008318-05	Air	08/20/20
6	GP-04-082020	- 006 /	008318-06	Air	08/20/20
7	SVS-01-082020 DUP	↓ - 001 DUP /	↓ - 01 DUP	↓	↓
8					
9					
10					
11					
12					

Notes:

1	MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 28, 2020  
**Parameters:** Fixed Gases  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc./Fremont Analytical  
**Sample Delivery Group (SDG):** 008318/2008283

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SVS-01-082020	008318-01/2008283-001	Air	08/20/20
SVS-02-082020	008318-02/2008283-002	Air	08/20/20
GP-01-082020	008318-03/2008283-003	Air	08/20/20
GP-02-082020	008318-04/2008283-004	Air	08/20/20
GP-03-082020	008318-05/2008283-005	Air	08/20/20
GP-04-082020	008318-06/2008283-006	Air	08/20/20
SVS-01-082020DUP	008318-01/2008283-001DUP	Air	08/20/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Fixed Gases by Method 3C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks are not required for this method.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **VIII. Field Duplicates**

No field duplicates were identified in this SDG.

## **IX. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **X. Target Compound Identification**

Raw data were not reviewed for Stage 2A validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Fixed Gases - Data Qualification Summary - SDG 008318/2008283**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Fixed Gases - Laboratory Blank Data Qualification Summary - SDG 008318/2008283**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Fixed Gases - Field Blank Data Qualification Summary - SDG 008318/2008283**

No Sample Data Qualified in this SDG

LDC #: 49089A51

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/19/20

SDG #: 008318/2008283

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc./Fremont Analytical

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC Fixed Gases (Method 3C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N/N	
IV.	Laboratory Blanks	N/N	Tedlar Bags
V.	Field blanks	N	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N/A	(7)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Sub Lab ID	Lab ID	Matrix	Date
1	SVS-01-082020	2008283-001	008318-01	Air	08/20/20
2	SVS-02-082020	-002	008318-02	Air	08/20/20
3	GP-01-082020	-003	008318-03	Air	08/20/20
4	GP-02-082020	-004	008318-04	Air	08/20/20
5	GP-03-082020	-005	008318-05	Air	08/20/20
6	GP-04-082020	-006	008318-06	Air	08/20/20
7	SVS-01-082020DUP	-001 DUP	008318-01DUP	Air	08/20/20
8					
9					
10					
11					
12					

Notes:


## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 28, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008261

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-081820	008261-01	Water	08/18/20
MW-1-081820DL	008261-01DL	Water	08/18/20
MW-2-081720	008261-02	Water	08/17/20
MW-4-081820	008261-03	Water	08/18/20
MW-4-081820DL	008261-03DL	Water	08/18/20
MW-6-081720	008261-04	Water	08/17/20
MW-7-081720	008261-05	Water	08/17/20
MW-8-081820	008261-06	Water	08/18/20
MW-8-081820DL	008261-06DL	Water	08/18/20
MW-9-081820	008261-07	Water	08/18/20
MW-10-081820	008261-08	Water	08/18/20
MW-11-081720	008261-09	Water	08/17/20
MW-12-081720	008261-10	Water	08/17/20
MW-13-081720	008261-11	Water	08/17/20
MW-14-081820	008261-12	Water	08/18/20
MW-14-081820DL	008261-12DL	Water	08/18/20
MW-16-081720	008261-13	Water	08/17/20
MW-17-081720	008261-14	Water	08/17/20
MW-18-081820	008261-15	Water	08/18/20
MW-19-081820	008261-16	Water	08/18/20
MW-20-081720	008261-17	Water	08/17/20
MW-21-081720	008261-18	Water	08/17/20
MW-22-081720	008261-19	Water	08/17/20
MW-23-081820	008261-20	Water	08/18/20
MW-23-081820DL	008261-20DL	Water	08/18/20
MW-24-081820	008261-21	Water	08/18/20

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-25-081820	008261-22	Water	08/18/20
MW-26-081820	008261-23	Water	08/18/20
DUP-01-081720	008261-24	Water	08/17/20
DUP-02-0819820	008261-25	Water	08/19/20
RB-01-081720	008261-26	Water	08/17/20
RB-02-081820	008261-27	Water	08/18/20
Trip Blank	008261-28	Water	08/18/20
MW-6-081720MS	008261-04MS	Water	08/17/20
MW-26-081820MS	008261-23MS	Water	08/18/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

Samples RB-01-081720 and RB-02-081820 were identified as rinsate blanks. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples MW-18-081820 and MW-22-081720 and samples DUP-01-081720 and DUP-02-0819820 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-18-081820	MW-22-081720		
Benzene	1.2	1.2	-	0 ( $\leq 0.70$ )

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	DUP-01-081720	DUP-02-0819820		
Benzene	540	500	8 ( $\leq 35$ )	-
Toluene	56	52	7 ( $\leq 35$ )	-
Ethylbenzene	630	570	10 ( $\leq 35$ )	-
m,p-Xylene	1200	1100	9 ( $\leq 35$ )	-
o-Xylene	150	140	7 ( $\leq 35$ )	-
Naphthalene	220	200	10 ( $\leq 35$ )	-

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Reason	Flag	A or P
MW-1-081820	Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	Results exceeded calibration range.	DNR	-
MW-1-081820DL	All compounds except Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	Results from undiluted analyses were more usable.	DNR	-
MW-4-081820 MW-8-081820	Toluene	Results exceeded calibration range.	DNR	-
MW-4-081820DL MW-8-081820DL	All compounds except Toluene	Results from undiluted analyses were more usable.	DNR	-
MW-14-081820	Benzene	Results exceeded calibration range.	DNR	-
MW-14-081820DL	All compounds except Benzene	Results from undiluted analyses were more usable.	DNR	-
MW-23-081820	Benzene Toluene Ethylbenzene m,p-Xylene	Results exceeded calibration range.	DNR	-
MW-23-081820DL	All compounds except Benzene Toluene Ethylbenzene m,p-Xylene	Results from undiluted analyses were more usable.	DNR	-

No results were rejected in this SDG.

**Aloha Café  
Volatiles - Data Qualification Summary - SDG 008261**

Sample	Compound	Flag	A or P	Reason
MW-1-081820	Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	DNR	-	Overall assessment of data
MW-1-081820DL	All compounds except Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	DNR	-	Overall assessment of data
MW-4-081820 MW-8-081820	Toluene	DNR	-	Overall assessment of data
MW-4-081820DL MW-8-081820DL	All compounds except Toluene	DNR	-	Overall assessment of data
MW-14-081820	Benzene	DNR	-	Overall assessment of data
MW-14-081820DL	All compounds except Benzene	DNR	-	Overall assessment of data
MW-23-081820	Benzene Toluene Ethylbenzene m,p-Xylene	DNR	-	Overall assessment of data
MW-23-081820DL	All compounds except Benzene Toluene Ethylbenzene m,p-Xylene	DNR	-	Overall assessment of data

**Aloha Café  
Volatiles - Laboratory Blank Data Qualification Summary - SDG 008261**

No Sample Data Qualified in this SDG

**Aloha Café  
Volatiles - Field Blank Data Qualification Summary - SDG 008261**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	AA	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	RB = 31, 32      TB = 33
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	(34)*, (35)*      MS only
IX.	Laboratory control samples	A	LC8/D
X.	Field duplicates	SW	D = 23 + 29, 19 + 30
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SW	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB = Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-1-081820	008261-01	Water	08/18/20
2	MW-1-081820 <del>RE DL</del>	008261-01 <del>RE DL</del>	Water	08/18/20
3	MW-2-081720	008261-02	Water	08/17/20
4	MW-4-081820	008261-03	Water	08/18/20
5	MW-4-081820 <del>RE DL</del>	008261-03 <del>RE DL</del>	Water	08/18/20
6	MW-6-081720	008261-04	Water	08/17/20
7	MW-7-081720	008261-05	Water	08/17/20
8	MW-8-081820	008261-06	Water	08/18/20
9	MW-8-081820 <del>RE DL</del>	008261-06 <del>RE DL</del>	Water	08/18/20
10	MW-9-081820	008261-07	Water	08/18/20
11	MW-10-081820	008261-08	Water	08/18/20
12	MW-11-081720	008261-09	Water	08/17/20
13	MW-12-081720	008261-10	Water	08/17/20

LDC #: 49089B1a

### VALIDATION COMPLETENESS WORKSHEET

Date: 08/19/20

SDG #: 008261

Level II

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc.

Reviewer: LST

2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260D)

	Client ID	Lab ID	Matrix	Date
14	MW-13-081720	008261-11	Water	08/17/20
15	MW-14-081820	008261-12	Water	08/18/20
16	MW-14-081820 <i>REDL</i>	008261-12 <i>REDL</i>	Water	08/18/20
17	MW-16-081720	008261-13	Water	08/17/20
18	MW-17-081720	008261-14	Water	08/17/20
19	MW-18-081820	<i>D<sub>2</sub></i> 008261-15	Water	08/18/20
20	MW-19-081820	008261-16	Water	08/18/20
21	MW-20-081720	008261-17	Water	08/17/20
22	MW-21-081720	008261-18	Water	08/17/20
23	MW-22-081720	<i>D<sub>1</sub></i> 008261-19	Water	08/17/20
24	MW-23-081820	008261-20	Water	08/18/20
25	MW-23-081820 <i>REDL</i>	008261-20 <i>REDL</i>	Water	08/18/20
26	MW-24-081820	008261-21	Water	08/18/20
27	MW-25-081820	008261-22	Water	08/18/20
28	MW-26-081820	008261-23	Water	08/18/20
29	DUP-01-081720	<i>D<sub>1</sub></i> 008261-24	Water	08/17/20
30	DUP-02-081820	<i>D<sub>2</sub></i> 008261-25	Water	08/18/20
31	RB-01-081720	008261-26	Water	08/17/20
32	RB-02-081820	008261-27	Water	08/18/20
33	Trip Blank	008261-28	Water	08/18/20
34	MW-6-081720MS	008261-04MS	Water	08/17/20
35	MW-26-081820MS	008261-23MS	Water	08/18/20
36				
37				
38				

Notes:

1	00-1868 MB				
2	00-1852 MB				
3	00-1853 MB				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC/MS VOA (EPA SW846 Method 8260D)

Compound	Concentration (ug/L)		RPD (≤35)	Diff (≤0.70)
	19	30		
V	1.2	1.2		0

Compound	Concentration (ug/L)		RPD (≤35)	Diff
	23	29		
V	540	500	8	
CC	56	52	7	
EE	630	570	10	
RRR	1200	1100	9	
SSS	150	140	7	
MMM	220	200	10	

**VALIDATION FINDINGS WORKSHEET**  
**Overall Assessment of Data**

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Yes  No  N/A  Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		1	V,CC,EE,RRR,SSS	exceed calibration range	DNR
		2	All except V,CC,EE,RRR,SSS	diluted	DNR
		4,8	CC	exceed calibration range	DNR
		5,9	All except CC	diluted	DNR
		15	V	exceed calibration range	DNR
		16	All except V	diluted	DNR
		24	V,CC,EE,RRR	exceed calibration range	DNR
		25	All except V,CC,EE,RRR	diluted	DNR

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 28, 2020

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008261

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-081820	008261-01	Water	08/18/20
MW-2-081720	008261-02	Water	08/17/20
MW-4-081820	008261-03	Water	08/18/20
MW-6-081720	008261-04	Water	08/17/20
MW-7-081720	008261-05	Water	08/17/20
MW-8-081820	008261-06	Water	08/18/20
MW-9-081820	008261-07	Water	08/18/20
MW-10-081820	008261-08	Water	08/18/20
MW-11-081720	008261-09	Water	08/17/20
MW-12-081720	008261-10	Water	08/17/20
MW-13-081720	008261-11	Water	08/17/20
MW-14-081820	008261-12	Water	08/18/20
MW-16-081720	008261-13	Water	08/17/20
MW-17-081720	008261-14	Water	08/17/20
MW-18-081820	008261-15	Water	08/18/20
MW-19-081820	008261-16	Water	08/18/20
MW-20-081720	008261-17	Water	08/17/20
MW-21-081720	008261-18	Water	08/17/20
MW-22-081720	008261-19	Water	08/17/20
MW-23-081820	008261-20	Water	08/18/20
MW-24-081820	008261-21	Water	08/18/20
MW-25-081820	008261-22	Water	08/18/20
MW-26-081820	008261-23	Water	08/18/20
DUP-01-081720	008261-24	Water	08/17/20
DUP-02-081820	008261-25	Water	08/18/20
RB-01-081720	008261-26	Water	08/17/20

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
RB-02-081820	008261-27	Water	08/18/20
Trip Blank	008261-28	Water	08/18/20
MW-7-081720DUP	008261-05DUP	Water	08/17/20
MW-24-081820DUP	008261-21DUP	Water	08/18/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a rinsate. No contaminants were found.

Samples RB-01-081720 and RB-02-081820 were identified as rinsate blanks. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-18-081820 and DUP-02-081820 and samples MW-22-081720 and DUP-01-081720 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-22-081720	DUP-01-081720		
Gasoline range	14000	13000	7 (≤35)	-

### **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

### **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

### **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
008261**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 008261**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 008261**

No Sample Data Qualified in this SDG

LDC #: 49089B7  
 SDG #: 008261  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Level II

Date: 09/19/20  
 Page: 1 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	PB = 26, 27 TB = 28
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	DUP N/A	(29) (30)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 15 + 25*, 19 + 24
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

\*ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB = Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-081820	008261-01	Water	08/18/20
2	MW-2-081720	008261-02	Water	08/17/20
3	MW-4-081820	008261-03	Water	08/18/20
4	MW-6-081720	008261-04	Water	08/17/20
5	MW-7-081720	008261-05	Water	08/17/20
6	MW-8-081820	008261-06	Water	08/18/20
7	MW-9-081820	008261-07	Water	08/18/20
8	MW-10-081820	008261-08	Water	08/18/20
9	MW-11-081720	008261-09	Water	08/17/20
10	MW-12-081720	008261-10	Water	08/17/20
11	MW-13-081720	008261-11	Water	08/17/20
12	MW-14-081820	008261-12	Water	08/18/20
13	MW-16-081720	008261-13	Water	08/17/20
14	MW-17-081720	008261-14	Water	08/17/20
15	MW-18-081820	D <sub>1</sub> 008261-15	Water	08/18/20
16	MW-19-081820	008261-16	Water	08/18/20
17	MW-20-081720	008261-17	Water	08/17/20

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

18	MW-21-081720		008261-18	Water	08/17/20
19	MW-22-081720	D <sub>2</sub>	008261-19	Water	08/17/20
20	MW-23-081820		008261-20	Water	08/18/20
21	MW-24-081820		008261-21	Water	08/18/20
22	MW-25-081820		008261-22	Water	08/18/20
23	MW-26-081820		008261-23	Water	08/18/20
24	DUP-01-081720	D <sub>2</sub>	008261-24	Water	08/17/20
25	DUP-02-081820	D <sub>1</sub>	008261-25	Water	08/18/20
26	RB-01-081720		008261-26	Water	08/17/20
27	RB-02-081820		008261-27	Water	08/18/20
28	Trip Blank		008261-28	Water	08/18/20
29	MW-7-081720DUP		008261-05DUP	Water	08/17/20
30	MW-24-081820DUP		008261-21DUP	Water	08/18/20
31					
32					
33					

Notes:

1	00-1800 MB				
2	00-1801 MB				

**VALIDATION FINDINGS WORKSHEET**  
Field Duplicates

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff
	19	24		
Gasoline Range	14000	13000	7	

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 28, 2020

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008261

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-081820	008261-01	Water	08/18/20
MW-2-081720	008261-02	Water	08/17/20
MW-4-081820	008261-03	Water	08/18/20
MW-6-081720	008261-04	Water	08/17/20
MW-7-081720	008261-05	Water	08/17/20
MW-8-081820	008261-06	Water	08/18/20
MW-9-081820	008261-07	Water	08/18/20
MW-10-081820	008261-08	Water	08/18/20
MW-11-081720	008261-09	Water	08/17/20
MW-12-081720	008261-10	Water	08/17/20
MW-13-081720	008261-11	Water	08/17/20
MW-14-081820	008261-12	Water	08/18/20
MW-16-081720	008261-13	Water	08/17/20
MW-17-081720	008261-14	Water	08/17/20
MW-18-081820	008261-15	Water	08/18/20
MW-19-081820	008261-16	Water	08/18/20
MW-20-081720	008261-17	Water	08/17/20
MW-21-081720	008261-18	Water	08/17/20
MW-22-081720	008261-19	Water	08/17/20
MW-23-081820	008261-20	Water	08/18/20
MW-24-081820	008261-21	Water	08/18/20
MW-25-081820	008261-22	Water	08/18/20
MW-26-081820	008261-23	Water	08/18/20
DUP-01-081720	008261-24	Water	08/17/20
DUP-02-081820	008261-25	Water	08/18/20
RB-01-081720	008261-26	Water	08/17/20
RB-02-081820	008261-27	Water	08/18/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## V. Field Blanks

Samples RB-01-081720 and RB-02-081820 were identified as rinsate blanks. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Compound	Concentration	Associated Samples
RB-01-081720	08/17/20	Diesel range (C10-C25)	67 ug/L	MW-2-081720 MW-6-081720 MW-7-081720 MW-11-081720 MW-12-081720 MW-13-081720 MW-16-081720 MW-17-081720 MW-20-081720 MW-21-081720 MW-22-081720 DUP-01-081720

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

## VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## IX. Field Duplicates

Samples MW-18-081820 and DUP-02-081820 and samples MW-22-081720 and DUP-01-081720 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-18-081820	DUP-02-081820		
Diesel range (C10-C25)	50U	53	-	3 (≤50)

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-22-081720	DUP-01-081720		
Diesel range (C10-C25)	2500	3100	21 (≤35)	-

## X. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XI. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 008261**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 008261**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 008261**

No Sample Data Qualified in this SDG

LDC #: 49089B8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 08/19/20

SDG #: 008261

Level II

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

METHOD: GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	SW	R = 26, 27*
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LC810
IX.	Field duplicates	SW	D = 19+24, 15+25
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

\*ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-081820	008261-01	Water	08/18/20
2	MW-2-081720	008261-02	Water	08/17/20
3	MW-4-081820	008261-03	Water	08/18/20
4	MW-6-081720	008261-04	Water	08/17/20
5	MW-7-081720	008261-05	Water	08/17/20
6	MW-8-081820	008261-06	Water	08/18/20
7	MW-9-081820	008261-07	Water	08/18/20
8	MW-10-081820	008261-08	Water	08/18/20
9	MW-11-081720	008261-09	Water	08/17/20
10	MW-12-081720	008261-10	Water	08/17/20
11	MW-13-081720	008261-11	Water	08/17/20
12	MW-14-081820	008261-12	Water	08/18/20
13	MW-16-081720	008261-13	Water	08/17/20
14	MW-17-081720	008261-14	Water	08/17/20
15	MW-18-081820	D <sub>2</sub> 008261-15	Water	08/18/20
16	MW-19-081820	008261-16	Water	08/18/20
17	MW-20-081720	008261-17	Water	08/17/20

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

18	MW-21-081720		008261-18	Water	08/17/20
19	MW-22-081720	D <sub>1</sub>	008261-19	Water	08/17/20
20	MW-23-081820		008261-20	Water	08/18/20
21	MW-24-081820		008261-21	Water	08/18/20
22	MW-25-081820		008261-22	Water	08/18/20
23	MW-26-081820		008261-23	Water	08/18/20
24	DUP-01-081720	D <sub>1</sub>	008261-24	Water	08/17/20
25	DUP-02-081820	D <sub>2</sub>	008261-25	Water	08/18/20
26	RB-01-081720		008261-26	Water	08/17/20
27	RB-02-081820		008261-27	Water	08/18/20
28					
29					
30					

Notes:

1	00-1892 MB				
2	00-1893 MB				

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** X GC     HPLC

N N/A Were field blanks identified in this SDG?

N N/A Were target compounds detected in the field blanks?

Blank units: ug/L Associated sample units: ug/L

Sampling date: 08/17/20

Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank  
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: RB

Associated Samples: 2,4,5,9-11,13,14,17-19,24 > CRQL and RB

Compound	Blank ID	Blank ID	Sample Identification								
	26										
Diesel Range (C10-C25)	67										

Blank units: \_\_\_\_\_ Associated sample units: \_\_\_\_\_

Sampling date: \_\_\_\_\_

Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank  
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: \_\_\_\_\_

Associated Samples: \_\_\_\_\_

Compound	Blank ID	Blank ID	Sample Identification								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC TPHE (NWTPH-Dx)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff
	19	24		
Diesel Range (C10-C25)	2500	3100	21	

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff ( $\leq 50$ )
	15	25		
Diesel Range (C10-C25)	50U	53		3



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

September 4, 2020

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on August 17, 2020. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #48872:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
007493, 007523 008076	Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Extractables

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C, SOP HW-24, Revision 4; October 2014
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink  
[crink@lab-data.com](mailto:crink@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 007493

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-22-10	007493-02	Soil	07/28/20
MW-22-12.5	007493-03	Soil	07/28/20
MW-22-16	007493-04	Soil	07/28/20
MW-22-25	007493-05	Soil	07/28/20
MW-23-8	007493-06	Soil	07/28/20
MW-23-12.5	007493-07	Soil	07/28/20
MW-23-18	007493-09	Soil	07/28/20
MW-23-25	007493-10	Soil	07/28/20
MW-21-5	007493-11	Soil	07/28/20
MW-21-10	007493-12	Soil	07/28/20
MW-21-17.5	007493-13	Soil	07/28/20
B-11-5.5	007493-15	Soil	07/28/20
B-11-10.5	007493-16	Soil	07/28/20
B-11-15	007493-17	Soil	07/28/20
MW-26-12.5	007493-22	Soil	07/29/20
MW-27-10.5	007493-25	Soil	07/29/20
MW-24-10.5	007493-29	Soil	07/29/20
DUP-3	007493-32	Soil	07/29/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples MW-27-10.5 and DUP-3 were identified as field duplicates. No results were detected in any of the samples.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 007493**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 007493**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 007493**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	Non diam
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	ND	D = 16 + 18
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-18
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-22-10	007493-02	Soil	07/28/20
2	MW-22-12.5	007493-03	Soil	07/28/20
3	MW-22-16	007493-04	Soil	07/28/20
4	MW-22-25	007493-05	Soil	07/28/20
5	MW-23-8	007493-06	Soil	07/28/20
6	MW-23-12.5	007493-07	Soil	07/28/20
7	MW-23-18	007493-09	Soil	07/28/20
8	MW-23-25	007493-10	Soil	07/28/20
9	MW-21-5	007493-11	Soil	07/28/20
10	MW-21-10	007493-12	Soil	07/28/20
11	MW-21-17.5	007493-13	Soil	07/28/20
12	B-11-5.5	007493-15	Soil	07/28/20
13	B-11-10.5	007493-16	Soil	07/28/20
14	B-11-15	007493-17	Soil	07/28/20

LDC #: 48872A1a

### VALIDATION COMPLETENESS WORKSHEET

Date: 09/02/20

SDG #: 007493

Level II

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc.

Reviewer: LS

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

	Client ID	Lab ID	Matrix	Date
15	MW-26-12.5	007493-22	Soil	07/29/20
16	MW-27-10.5	D · 007493-25	Soil	07/29/20
17	MW-24-10.5	· 007493-29	Soil	07/29/20
18	DUP-3	D · 007493-32	Soil	07/29/20
19				
20				
21				

Notes:

1	00-1719 MB				
2	00-1688 -MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 007493

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-22-10	007493-02	Soil	07/28/20
MW-22-12.5	007493-03	Soil	07/28/20
MW-22-16	007493-04	Soil	07/28/20
MW-22-25	007493-05	Soil	07/28/20
MW-23-8	007493-06	Soil	07/28/20
MW-23-12.5	007493-07	Soil	07/28/20
MW-23-18	007493-09	Soil	07/28/20
MW-23-25	007493-10	Soil	07/28/20
MW-21-5	007493-11	Soil	07/28/20
MW-21-10	007493-12	Soil	07/28/20
MW-21-17.5	007493-13	Soil	07/28/20
B-11-5.5	007493-15	Soil	07/28/20
B-11-10.5	007493-16	Soil	07/28/20
B-11-15	007493-17	Soil	07/28/20
MW-26-12.5	007493-22	Soil	07/29/20
MW-27-10.5	007493-25	Soil	07/29/20
MW-24-10.5	007493-29	Soil	07/29/20
DUP-3	007493-32	Soil	07/29/20
MW-22-10DUP	007493-02DUP	Soil	07/28/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-27-10.5 and DUP-3 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
007493**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 007493**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 007493**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N/A	(19, 20) (19)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 16 + 18
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-18
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB = Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-22-10	007493-02	Soil	07/28/20
2	MW-22-12.5	007493-03	Soil	07/28/20
3	MW-22-16	007493-04	Soil	07/28/20
4	MW-22-25	007493-05	Soil	07/28/20
5	MW-23-8	007493-06	Soil	07/28/20
6	MW-23-12.5	007493-07	Soil	07/28/20
7	MW-23-18	007493-09	Soil	07/28/20
8	MW-23-25	007493-10	Soil	07/28/20
9	MW-21-5	007493-11	Soil	07/28/20
10	MW-21-10	007493-12	Soil	07/28/20
11	MW-21-17.5	007493-13	Soil	07/28/20
12	B-11-5.5	007493-15	Soil	07/28/20
13	B-11-10.5	007493-16	Soil	07/28/20
14	B-11-15	007493-17	Soil	07/28/20
15	MW-26-12.5	007493-22	Soil	07/29/20
16	MW-27-10.5	D. 007493-25	Soil	07/29/20
17	MW-24-10.5	007493-29	Soil	07/29/20

LDC #: 48872A7 **VALIDATION COMPLETENESS WORKSHEET**  
 SDG #: 007493 Level II  
 Laboratory: Friedman & Bruya, Inc.

Date: 07/02/20  
 Page: 2 of 2  
 Reviewer: BT  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

	Client ID	Lab ID	Matrix	Date
18	DUP-3	007493-32	Soil	07/29/20
19	MW-22-10MS <i>DUP</i>	007493-02MS <i>DUP</i>	Soil	07/28/20
20	MW-22-10MSD	007493-02MSD	Soil	07/28/20
21				
22				
23				

Notes:

1	00-1395 MB				
2	00-1390 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 007493

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-22-10	007493-02	Soil	07/28/20
MW-22-12.5	007493-03	Soil	07/28/20
MW-22-16	007493-04	Soil	07/28/20
MW-22-25	007493-05	Soil	07/28/20
MW-23-8	007493-06	Soil	07/28/20
MW-23-12.5	007493-07	Soil	07/28/20
MW-23-18	007493-09	Soil	07/28/20
MW-23-25	007493-10	Soil	07/28/20
MW-21-5	007493-11	Soil	07/28/20
MW-21-10	007493-12	Soil	07/28/20
MW-21-17.5	007493-13	Soil	07/28/20
B-11-5.5	007493-15	Soil	07/28/20
B-11-10.5	007493-16	Soil	07/28/20
B-11-15	007493-17	Soil	07/28/20
MW-26-12.5	007493-22	Soil	07/29/20
MW-27-10.5	007493-25	Soil	07/29/20
MW-24-10.5	007493-29	Soil	07/29/20
DUP-3	007493-32	Soil	07/29/20
MW-22-16MS	007493-04MS	Soil	07/28/20
MW-22-16MSD	007493-04MSD	Soil	07/28/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-27-10.5 and DUP-3 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 007493**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 007493**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 007493**

No Sample Data Qualified in this SDG

LDC #: 48872A8

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 007493

Level II

Laboratory: Friedman &amp; Bruya, Inc.

Date: 09/02/20

Page: 1 of 2

Reviewer: LT2nd Reviewer: [Signature]METHOD: GC TPH as Diesel (NWTPH-Dx)  
*TPH E*

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	(19,20)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D=16+18
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-18
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-22-10	007493-02	Soil	07/28/20
2	MW-22-12.5	007493-03	Soil	07/28/20
3	MW-22-16	007493-04	Soil	07/28/20
4	MW-22-25	007493-05	Soil	07/28/20
5	MW-23-8	007493-06	Soil	07/28/20
6	MW-23-12.5	007493-07	Soil	07/28/20
7	MW-23-18	007493-09	Soil	07/28/20
8	MW-23-25	007493-10	Soil	07/28/20
9	MW-21-5	007493-11	Soil	07/28/20
10	MW-21-10	007493-12	Soil	07/28/20
11	MW-21-17.5	007493-13	Soil	07/28/20
12	B-11-5.5	007493-15	Soil	07/28/20
13	B-11-10.5	007493-16	Soil	07/28/20
14	B-11-15	007493-17	Soil	07/28/20
15	MW-26-12.5	007493-22	Soil	07/29/20
16	MW-27-10.5	D 007493-25	Soil	07/29/20
17	MW-24-10.5	007493-29	Soil	07/29/20

LDC #: 48872A8 **VALIDATION COMPLETENESS WORKSHEET**  
 SDG #: 007493 **Level II**  
 Laboratory: Friedman & Bruya, Inc.  
<sup>TPE</sup>  
**METHOD: GC TPH as Diesel (NWTPH-Dx)**

Date: 08/12/20  
 Page: 2 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

	Client ID	Lab ID	Matrix	Date
18.	DUP-3 <span style="margin-left: 150px;">D</span>	007493-32	Soil	07/29/20
19	MW-22-16MS	007493-04MS	Soil	07/28/20
20	MW-22-16MSD	007493-04MSD	Soil	07/28/20
21				
22				
23				

Notes:

1	00-1762 MB				
2	00-1713 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 007523

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-20-5'	007523-01	Soil	07/30/20
MW-20-8'	007523-02	Soil	07/30/20
MW-20-13'	007523-04	Soil	07/30/20
MW-25-8'	007523-12	Soil	07/30/20
B-10-12.5	007523-23	Soil	07/30/20
MW-21A-2.5'	007523-29	Soil	07/30/20
MW-22A-2.5'	007523-30	Soil	07/30/20
MW-22B-5'	007523-31	Soil	07/30/20
DUP-4	007523-32	Soil	07/30/20
Trip Blank	007523-34	Water	07/30/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

Samples MW-20-8' and DUP-4 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Difference (Limits)	Flag	A or P
	MW-20-8'	DUP-4				
Naphthalene	0.065	0.098	-	0.033 ( $\leq 0.10$ )	-	-

#### **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

#### **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

#### **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

#### **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

#### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 007523**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 007523**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 007523**

No Sample Data Qualified in this SDG

LDC #: 48872B1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/02/20

SDG #: 007523

Level II

Page: 6 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 10
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	Non client
IX.	Laboratory control samples	A	LC5/D
X.	Field duplicates	SW	D = 2 + 9
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-g
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-20-5'	007523-01	Soil	07/30/20
2	MW-20-8'	D 007523-02	Soil	07/30/20
3	MW-20-13'	007523-04	Soil	07/30/20
4	MW-25-8'	007523-12	Soil	07/30/20
5	B-10-12.5	007523-23	Soil	07/30/20
6	MW-21A-2.5'	007523-29	Soil	07/30/20
7	MW-22A-2.5'	007523-30	Soil	07/30/20
8	MW-22B-5'	007523-31	Soil	07/30/20
9	DUP-4	D 007523-32	Soil	07/30/20
10	Trip Blank	007523-34	Water	07/30/20
11				
12	1. 00-1718 MB			
13	2. 00-1684 MB			
14				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GC/MS VOA (EPA SW846 Method 8260D)

Compound	Concentration (mg/kg)		RPD ( $\leq 35$ )	Diff ( $\leq 0.10$ )
	2	9		
MMM	0.065	0.098		0.033

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 007523

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-20-5'	007523-01	Soil	07/30/20
MW-20-8'	007523-02	Soil	07/30/20
MW-20-13'	007523-04	Soil	07/30/20
MW-25-8'	007523-12	Soil	07/30/20
B-10-12.5	007523-23	Soil	07/30/20
MW-21A-2.5'	007523-29	Soil	07/30/20
MW-22A-2.5'	007523-30	Soil	07/30/20
MW-22B-5'	007523-31	Soil	07/30/20
DUP-4	007523-32	Soil	07/30/20
Trip Blank	007523-34	Water	07/30/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## V. Field Blanks

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## IX. Field Duplicates

Samples MW-20-8' and DUP-4 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Difference (Limits)	Flag	A or P
	MW-20-8'	DUP-4				
Gasoline range	5U	9.2	-	4.2 (≤10)	-	-

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
007523**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 007523**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 007523**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB=10
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 2 + 9
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1.9
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-20-5'	007523-01	Soil	07/30/20
2	MW-20-8'	D 007523-02	Soil	07/30/20
3	MW-20-13'	007523-04	Soil	07/30/20
4	MW-25-8'	007523-12	Soil	07/30/20
5	B-10-12.5	007523-23	Soil	07/30/20
6	MW-21A-2.5'	007523-29	Soil	07/30/20
7	MW-22A-2.5'	007523-30	Soil	07/30/20
8	MW-22B-5'	007523-31	Soil	07/30/20
9	DUP-4	D 007523-32	Soil	07/30/20
10	Trip Blank	007523-34	Water	07/30/20
11				
12				
13				

Notes:

1	00-1392 MB				
2	00-1393 MB				

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

Compound	Concentration (mg/kg)		RPD (≤35)	Diff (≤10)
	2	9		
Gasoline Range	5U	9.2		4.2

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 007523

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-20-5'	007523-01	Soil	07/30/20
MW-20-8'	007523-02	Soil	07/30/20
MW-20-13'	007523-04	Soil	07/30/20
MW-25-8'	007523-12	Soil	07/30/20
B-10-12.5	007523-23	Soil	07/30/20
MW-21A-2.5'	007523-29	Soil	07/30/20
MW-22A-2.5'	007523-30	Soil	07/30/20
MW-22B-5'	007523-31	Soil	07/30/20
DUP-4	007523-32	Soil	07/30/20
MW-20-5'MS	007523-01MS	Soil	07/30/20
MW-20-5'MSD	007523-01MSD	Soil	07/30/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples MW-20-8' and DUP-4 were identified as field duplicates. No results were detected in any of the samples.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 007523**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 007523**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 007523**

No Sample Data Qualified in this SDG

LDC #: 48872B8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 09/22/20

SDG #: 007523

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LS

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	(10,11)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 2+9
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1.9
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-20-5'	007523-01	Soil	07/30/20
2	MW-20-8'	D 007523-02	Soil	07/30/20
3	MW-20-13'	007523-04	Soil	07/30/20
4	MW-25-8'	007523-12	Soil	07/30/20
5	B-10-12.5	007523-23	Soil	07/30/20
6	MW-21A-2.5'	007523-29	Soil	07/30/20
7	MW-22A-2.5'	007523-30	Soil	07/30/20
8	MW-22B-5'	007523-31	Soil	07/30/20
9	DUP-4	D 007523-32	Soil	07/30/20
10	MW-20-5'MS	007523-01MS	Soil	07/30/20
11	MW-20-5'MSD	007523-01MSD	Soil	07/30/20
12				
13				

Notes:

1	00-1754 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** September 3, 2020  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 008076

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
B-09-2.5	008076-01	Soil	08/05/20
B-09-6	008076-03	Soil	08/05/20
Trip Blank	008076-06	Water	08/05/20
B-09-2.5MS	008076-01MS	Soil	08/05/20
B-09-2.5MSD	008076-01MSD	Soil	08/05/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 008076**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 008076**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 008076**

No Sample Data Qualified in this SDG

LDC #: 48872C1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 8/15/20

SDG #: 008076

Level II

Page: L of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 3
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	(4,5)
IX.	Laboratory control samples	A	LC510
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1.2
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-09-2.5	008076-01	Soil	08/15/20
2	B-09-6	008076-03	Soil	08/15/20
3	Trip Blank	008076-06	Water	08/15/20
4	B-09-2.5MS	008076-01MS	Soil	08/15/20
5	B-09-2.5MSD	008076-01MSD	Soil	08/15/20
6				
7				
8				
9				

Notes:

1	00-1728 MB				
2	00-1729 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008076

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
B-09-2.5	008076-01	Soil	08/05/20
B-09-6	008076-03	Soil	08/05/20
Trip Blank	008076-06	Water	08/05/20
B-09-2.5DUP	008076-01DUP	Soil	08/05/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
008076**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 008076**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 008076**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB= 3
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates / DUP	N/A	(4,5) (4)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1,2
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	B-09-2.5	008076-01	Soil	08/15/20
2	B-09-6	008076-03	Soil	08/15/20
3	Trip Blank	008076-06	Water	08/15/20
4	B-09-2.5MS DUP	008076-01MS DUP	Soil	08/15/20
5	B-09-2.5MSD	008076-01MSD	Soil	08/15/20
6				
7				
8				
9				
10				
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12				
13				

Notes:

1	00-1400MB				
2	00-1781MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** September 3, 2020

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 008076

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
B-09-2.5	008076-01	Soil	08/05/20
B-09-6	008076-03	Soil	08/05/20
B-09-2.5MS	008076-01MS	Soil	08/05/20
B-09-2.5MSD	008076-01MSD	Soil	08/05/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 008076**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 008076**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 008076**

No Sample Data Qualified in this SDG

LDC #: 48872C8  
 SDG #: 008076  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**

Level II

Date: 09/02/20

Page: 1 of 1

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	(3,4)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1,2
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-09-2.5	008076-01	Soil	08/15/20
2	B-09-6	008076-03	Soil	08/15/20
3	B-09-2.5MS	008076-01MS	Soil	08/15/20
4	B-09-2.5MSD	008076-01MSD	Soil	08/15/20
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13				

Notes:

1	00-1777 MB				



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

December 31, 2020

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on December 4, 2020. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #49889:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
011185, 011339 011403	Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Extractables

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C, SOP HW-24, Revision 4; October 2014
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink  
[crink@lab-data.com](mailto:crink@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Naphthalene  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011185

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-05-1.25	011185-01	Soil	11/10/20
GP-05-6	011185-02	Soil	11/10/20
GP-06-2.5	011185-03	Soil	11/10/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Naphthalene by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Naphthalene - Data Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Naphthalene - Laboratory Blank Data Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Naphthalene - Field Blank Data Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

**METHOD:** GC Naphthalene (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-3
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	GP-05-1.25	011185-01	Soil	11/10/20
2	GP-05-6	011185-02	Soil	11/10/20
3 *	GP-06-2.5	011185-03	Soil	11/10/20
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Notes:

1	00-2668 MB				
2	00-2697 MB				

\* Collection time discrepancy CDC 12:26 vs EDO 09:36

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011185

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-05-1.25	011185-01	Soil	11/10/20
GP-05-6	011185-02	Soil	11/10/20
GP-06-2.5	011185-03	Soil	11/10/20
GP-05-1.25DUP	011185-01DUP	Soil	11/10/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
011185**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 011185**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates <i>DUP</i>	NA	(4)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-3
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	GP-05-1.25	011185-01	Soil	11/17/20
2	GP-05-6	011185-02	Soil	11/17/20
3 *	GP-06-2.5	011185-03	Soil	11/17/20
4	GP-05-1.25DUP	011185-01DUP	Soil	11/17/20
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12				

Notes:

1	00-2418-MB				
2	00-2419-MB2				

\*Collection time discrepancy LOC 12:26 vs EDD 09:32

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011185

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-05-1.25	011185-01	Soil	11/10/20
GP-05-6	011185-02	Soil	11/10/20
GP-06-2.5	011185-03	Soil	11/10/20
GP-05-6MS	011185-02MS	Soil	11/10/20
GP-05-6MSD	011185-02MSD	Soil	11/10/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 011185**

No Sample Data Qualified in this SDG

**METHOD:** GC <sup>TPHE</sup>TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	AA	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	<del>A/N</del>	<del>(4.5) Non client (4.5)</del>
VIII.	Laboratory control samples	A	LOS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	DW weight basis = 1-3
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-05-1.25	011185-01	Soil	11/17/20
2	GP-05-6	011185-02	Soil	11/17/20
3 *	GP-06-2.5	011185-03	Soil	11/17/20
4	GP-05-6MS	011185-02MS	Soil	11/17/20
5	GP-05-6MSD	011185-02MSD	Soil	11/17/20
6				
7				
8				
9				
10				
11				
12				

Notes:

1	00-2494-MB				
2	00-2532-MB				

\* Collection time discrepancy C0C 12:26 vs E30 09:36

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011185

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-05-1.25	011185-01	Soil	11/10/20
GP-05-6	011185-02	Soil	11/10/20
GP-06-2.5	011185-03	Soil	11/10/20
GP-05-1.25DUP	011185-01DUP	Soil	11/10/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) which are Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by Environmental Protection Agency (EPA) SW 846 Method 8021B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 011185**

No Sample Data Qualified in this SDG

LDC #: 49889A23

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/28/20

SDG #: 011185

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT  
2nd Reviewer: KRC

**METHOD:** GC Volatiles (BTEX) (EPA SW 846 Method 8021B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates <sup>DUP</sup>	N/A	(4)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	Dry weight basis = 1-3
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-05-1.25	011185-01	Soil	11/17/20
2	GP-05-6	011185-02	Soil	11/17/20
3 *	GP-06-2.5	011185-03	Soil	11/17/20
4	GP-05-1.25DUP	011185-01DUP	Soil	11/17/20
5				
6				
7				
8				
9				
10				
11				
12				

Notes:

1	00-2418 MB				
2	00-2419 MB2				

\* collection time discrepancy COC 12:20 vs EDD 01:36

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** December 29, 2020

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 011339

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-111820	011339-01	Water	11/18/20
MW-2-111720	011339-02	Water	11/17/20
MW-6-111620	011339-03	Water	11/16/20
MW-7-111720	011339-04	Water	11/17/20
MW-9-111620	011339-05	Water	11/16/20
MW-10-111720	011339-06	Water	11/17/20
MW-10-111720DL	011339-06DL	Water	11/17/20
MW-11-111720	011339-07	Water	11/17/20
MW-12-111620	011339-08	Water	11/16/20
MW-13-111720	011339-09	Water	11/17/20
MW-14-111820	011339-10	Water	11/18/20
MW-14-111820DL	011339-10DL	Water	11/18/20
MW-16-111620	011339-11	Water	11/16/20
MW-17-111620	011339-12	Water	11/16/20
MW-18-111620	011339-13	Water	11/16/20
MW-19-111720	011339-14	Water	11/17/20
MW-20-111720	011339-15	Water	11/17/20
MW-21-111720	011339-16	Water	11/17/20
MW-22-111620	011339-17	Water	11/16/20
MW-23-111820	011339-18	Water	11/18/20
MW-24-111720	011339-19	Water	11/17/20
MW-25-111620	011339-20	Water	11/16/20
MW-26-111620	011339-21	Water	11/16/20
CMW-1-111720	011339-22	Water	11/17/20
CMW-4-111720	011339-23	Water	11/17/20
DUP-01-111620	011339-24	Water	11/16/20

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
DUP-02-111720	011339-25	Water	11/17/20
RB-01-111720	011339-26	Water	11/17/20
RB-02-111820	011339-27	Water	11/18/20
Trip Blank	011339-28	Water	11/17/20
MW-24-111720MS	011339-19MS	Water	11/17/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

Samples RB-01-111720 and RB-02-111820 were identified as rinsate blanks. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples MW-10-111720 and DUP-02-111720, samples MW-10-111720DL and DUP-02-111720, and samples MW-18-111620 and DUP-01-111620 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-10-111720	DUP-02-111720		
Toluene	31	32	-	1 ( $\leq 35$ )
Ethylbenzene	630	710	12 ( $\leq 35$ )	-
m,p-Xylene	620	690	11 ( $\leq 35$ )	-
Naphthalene	220	200	-	20 ( $\leq 100$ )

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-10-111720DL	DUP-02-111720		
Benzene	1800	1800	0 ( $\leq 35$ )	-

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-18-111620	DUP-01-111620		
Benzene	61	83	31 ( $\leq 35$ )	-
Toluene	1U	1.3	-	0.3 ( $\leq 2$ )
Ethylbenzene	2.1	3.3	-	1.2 ( $\leq 2$ )
m,p-Xylene	9.8	15	-	5.2 ( $\leq 4$ )
o-Xylene	2.1	2.9	-	0.8 ( $\leq 2$ )
Naphthalene	2.4	3.0	-	0.6 ( $\leq 2$ )

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

<b>Sample</b>	<b>Compound</b>	<b>Reason</b>	<b>Flag</b>	<b>A or P</b>
MW-10-111720 MW-14-111820	Benzene	Results exceeded calibration range.	DNR	-

No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 011339**

Sample	Compound	Flag	A or P	Reason
MW-10-111720 MW-14-111820	Benzene	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 011339**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 011339**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	RB=28, 29 TB=30
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	(31) - Ms only
IX.	Laboratory control samples	A	LC510
X.	Field duplicates	SW	D = 15+26, 6+27, 7+27
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SW	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-1-111820	011339-01	Water	11/18/20
2	MW-2-111720	011339-02	Water	11/17/20
3	MW-6-111620	011339-03	Water	11/16/20
4	MW-7-111720	011339-04	Water	11/17/20
5	MW-9-111620	011339-05	Water	11/16/20
6	MW-10-111720	D <sub>2</sub> 011339-06	Water	11/17/20
7	MW-10-111720 RE DL	P <sub>2</sub> 011339-06 RE DL	Water	11/17/20
8	MW-11-111720	011339-07	Water	11/17/20
9	MW-12-111620	011339-08	Water	11/16/20
10	MW-13-111720	011339-09	Water	11/17/20
11	MW-14-111820	011339-10	Water	11/18/20
12	MW-14-111820 RE DL	011339-10 RE DL	Water	11/18/20
13	MW-16-111620	011339-11	Water	11/16/20
14	MW-17-111620	011339-12	Water	11/16/20

\*x Collection time discrepancy COC 14:55 vs EOD 00:00  
↓  
COC 12:15 vs ↓

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

15	MW-18-111620	D <sub>1</sub>	011339-13	Water	11/16/20
16	MW-19-111720		011339-14	Water	11/17/20
17	MW-20-111720		011339-15	Water	11/17/20
18	MW-21-111720		011339-16	Water	11/17/20
19	MW-22-111620		011339-17	Water	11/16/20
20	MW-23-111820		011339-18	Water	11/18/20
21	MW-24-111720		011339-19	Water	11/17/20
22	MW-25-111620		011339-20	Water	11/16/20
23	MW-26-111620		011339-21	Water	11/16/20
24	CMW-1-111720		011339-22	Water	11/17/20
25	CMW-4-111720		011339-23	Water	11/17/20
26	DUP-01- <del>111620</del> 111620	D <sub>1</sub>	011339-24	Water	11/16/20
27	DUP-02-111720	D <sub>2</sub>	011339-25	Water	11/17/20
28*	RB-01-111720		011339-26	Water	11/17/20
29**	RB-02-111820		011339-27	Water	11/17/20
30	Trip Blank		011339-28	Water	11/17/20
31	MW-24-111720MS		011339-19MS	Water	11/17/20
32					
33					
34					

Notes:

1	00-2696 MB				
2	00-2545 ↓				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC/MS VOA (EPA SW846 Method 8260D)

Compound	Concentration (ug/L)		RPD (≤35)	Diff	Diff Limit
	6	27			
CC	31	32		1	(≤35)
EE	630	710	12		
RRR	620	690	11		
MMM	220	200		20	(≤100)

Compound	Concentration (ug/L)		RPD (≤35)	Diff	Diff Limit
	7	27			
V	1800	1800	0		

Compound	Concentration (ug/L)		RPD (≤35)	Diff	Diff Limit	Qual
	15	26				
V	61	83	31			
CC	1U	1.3		0.3	(≤2)	
EE	2.1	3.3		1.2	(≤2)	
RRR	9.8	15		5.2	(≤4)	<del>J/A DETS</del>
SSS	2.1	2.9		0.8	(≤2)	
MMM	2.4	3.0		0.6	(≤2)	



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** December 29, 2020

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 011339

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-111820	011339-01	Water	11/18/20
MW-2-111720	011339-02	Water	11/17/20
MW-6-111620	011339-03	Water	11/16/20
MW-7-111720	011339-04	Water	11/17/20
MW-9-111620	011339-05	Water	11/16/20
MW-10-111720	011339-06	Water	11/17/20
MW-11-111720	011339-07	Water	11/17/20
MW-12-111620	011339-08	Water	11/16/20
MW-13-111720	011339-09	Water	11/17/20
MW-14-111820	011339-10	Water	11/18/20
MW-16-111620	011339-11	Water	11/16/20
MW-17-111620	011339-12	Water	11/16/20
MW-18-111620	011339-13	Water	11/16/20
MW-19-111720	011339-14	Water	11/17/20
MW-20-111720	011339-15	Water	11/17/20
MW-21-111720	011339-16	Water	11/17/20
MW-22-111620	011339-17	Water	11/16/20
MW-23-111820	011339-18	Water	11/18/20
MW-24-111720	011339-19	Water	11/17/20
MW-25-111620	011339-20	Water	11/16/20
MW-26-111620	011339-21	Water	11/16/20
CMW-1-111720	011339-22	Water	11/17/20
CMW-4-111720	011339-23	Water	11/17/20
DUP-01-111620	011339-24	Water	11/16/20
DUP-02-111720	011339-25	Water	11/17/20
RB-01-111720	011339-26	Water	11/17/20

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
RB-02-111820	011339-27	Water	11/18/20
Trip Blank	011339-28	Water	11/17/20
MW-16-111620DUP	011339-11DUP	Water	11/16/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a rinsate. No contaminants were found.

Samples RB-01-111720 and RB-02-111820 were identified as rinsate blanks. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## IX. Field Duplicates

Samples MW-10-111720 and DUP-02-111720 and samples MW-18-111620 and DUP-01-111620 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-10-111720	DUP-02-111720		
Gasoline range	12000	13000	8 (≤35)	-

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-18-111620	DUP-01-111620		
Gasoline range	340	370	-	30 (≤200)

## X. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

## XI. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
011339**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 011339**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 011339**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	RB = 24, 24 TB = 28
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates / DUP	N/A	(2a)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 13 + 24, 6 + 25
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-1-111820	011339-01	Water	11/18/20
2	MW-2-111720	011339-02	Water	11/17/20
3	MW-6-111620	011339-03	Water	11/16/20
4	MW-7-111720	011339-04	Water	11/17/20
5	MW-9-111620	011339-05	Water	11/16/20
6	MW-10-111720	D <sub>2</sub> 011339-06	Water	11/17/20
7	MW-11-111720	011339-07	Water	11/17/20
8	MW-12-111620	011339-08	Water	11/16/20
9	MW-13-111720	011339-09	Water	11/17/20
10	MW-14-111820	011339-10	Water	11/18/20
11	MW-16-111620	011339-11	Water	11/16/20
12	MW-17-111620	011339-12	Water	11/16/20
13	MW-18-111620	D <sub>1</sub> 011339-13	Water	11/16/20
14	MW-19-111720	011339-14	Water	11/17/20
15	MW-20-111720	011339-15	Water	11/17/20
16	MW-21-111720	011339-16	Water	11/17/20
17	MW-22-111620	011339-17	Water	11/16/20

\* collection time discrepancy CAC 14:55 vs EDD 00:00  
 \*\* CAC 12:05 vs ↓

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

18	MW-23-111820	011339-18	Water	11/18/20
19	MW-24-111720	011339-19	Water	11/17/20
20	MW-25-111620	011339-20	Water	11/16/20
21	MW-26-111620	011339-21	Water	11/16/20
22	CMW-1-111720	011339-22	Water	11/17/20
23	CMW-4-111720	011339-23	Water	11/17/20
24	DUP-01-111620 <span style="margin-left: 100px;">D<sub>1</sub></span>	011339-24	Water	11/16/20
25	DUP-02-111720 <span style="margin-left: 100px;">D<sub>2</sub></span>	011339-25	Water	11/17/20
26 *	RB-01-111720	011339-26	Water	11/17/20
27 **	RB-02-111820	011339-27	Water	11/17/20 <span style="margin-left: 20px;">S</span>
28	Trip Blank	011339-28	Water	11/17/20
29	MW-16-111620DUP	011339-11DUP	Water	11/16/20
30				
31				
32				

Notes:

1	00-2424 MB					
2	00-2426 ↓					

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

Compound	Concentration (ug/L)		RPD (≤35)	Diff
	6	25		
Gasoline Range	12000	13000	8	

Compound	Concentration (ug/L)		RPD	Diff (≤200)
	13	24		
Gasoline Range	340	370		30

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** December 29, 2020

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 011339

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-111820	011339-01	Water	11/18/20
MW-2-111720	011339-02	Water	11/17/20
MW-6-111620	011339-03	Water	11/16/20
MW-7-111720	011339-04	Water	11/17/20
MW-9-111620	011339-05	Water	11/16/20
MW-10-111720	011339-06	Water	11/17/20
MW-11-111720	011339-07	Water	11/17/20
MW-12-111620	011339-08	Water	11/16/20
MW-13-111720	011339-09	Water	11/17/20
MW-14-111820	011339-10	Water	11/18/20
MW-16-111620	011339-11	Water	11/16/20
MW-17-111620	011339-12	Water	11/16/20
MW-18-111620	011339-13	Water	11/16/20
MW-19-111720	011339-14	Water	11/17/20
MW-20-111720	011339-15	Water	11/17/20
MW-21-111720	011339-16	Water	11/17/20
MW-22-111620	011339-17	Water	11/16/20
MW-23-111820	011339-18	Water	11/18/20
MW-24-111720	011339-19	Water	11/17/20
MW-25-111620	011339-20	Water	11/16/20
MW-26-111620	011339-21	Water	11/16/20
CMW-1-111720	011339-22	Water	11/17/20
CMW-4-111720	011339-23	Water	11/17/20
DUP-01-111620	011339-24	Water	11/16/20
DUP-02-111720	011339-25	Water	11/17/20
RB-01-111720	011339-26	Water	11/17/20
RB-02-111820	011339-27	Water	11/18/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Samples RB-01-111720 and RB-02-111820 were identified as rinsate blanks. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

Samples MW-10-111720 and DUP-02-111720 and samples MW-18-111620 and DUP-01-111620 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-10-111720	DUP-02-111720		
Diesel range (C10-C25)	1400	1700	19 (≤35)	-
Motor oil range (C25-C36)	250U	280	-	30 (≤500)

Compound	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-18-111620	DUP-01-111620		
Diesel range (C10-C25)	59	59	-	0 (≤100)

### X. Compound Quantitation

Raw data were not reviewed for Stage 2A validation.

### XI. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

### XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 011339**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 011339**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 011339**

No Sample Data Qualified in this SDG

**METHOD:** GC TPHE as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	PB = 26, 27
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS 10
IX.	Field duplicates	SW	D = 13 + 24, 6 + 25
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-1-111820	011339-01	Water	11/18/20
2	MW-2-111720	011339-02	Water	11/17/20
3	MW-6-111620	011339-03	Water	11/16/20
4	MW-7-111720	011339-04	Water	11/17/20
5	MW-9-111620	011339-05	Water	11/16/20
6	MW-10-111720	D <sub>2</sub> 011339-06	Water	11/17/20
7	MW-11-111720	011339-07	Water	11/17/20
8	MW-12-111620	011339-08	Water	11/16/20
9	MW-13-111720	011339-09	Water	11/17/20
10	MW-14-111820	011339-10	Water	11/18/20
11	MW-16-111620	011339-11	Water	11/16/20
12	MW-17-111620	011339-12	Water	11/16/20
13	MW-18-111620	D <sub>1</sub> 011339-13	Water	11/16/20
14	MW-19-111720	011339-14	Water	11/17/20
15	MW-20-111720	011339-15	Water	11/17/20
16	MW-21-111720	011339-16	Water	11/17/20
17	MW-22-111620	011339-17	Water	11/16/20

\* Collection time discrepancy COL 1455 vs EDD 00:00  
 \* \* COL 12:15 vs ↓

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

18	MW-23-111820		011339-18	Water	11/18/20
19	MW-24-111720		011339-19	Water	11/17/20
20	MW-25-111620		011339-20	Water	11/16/20
21	MW-26-111620		011339-21	Water	11/16/20
22	CMW-1-111720		011339-22	Water	11/17/20
23	CMW-4-111720		011339-23	Water	11/17/20
24	DUP-01-1116260	D <sub>1</sub>	011339-24	Water	11/16/20
25	DUP-02-111720	D <sub>2</sub>	011339-25	Water	11/17/20
26 *	RB-01-111720		011339-26	Water	11/17/20
27 **	RB-02-111820		011339-27	Water	11/17/20
28					
29					
30					

Notes:

1	00-2573-MB				
2	00-2542 ↓				

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC TPHE (NWTPH-Dx)

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff ( $\leq 500$ )
	6	25		
Diesel Range (C10-C25)	1400	1700	19	
Motor Oil Range (C25-C36)	250U	280		30

Compound	Concentration (ug/L)		RPD ( $\leq 35$ )	Diff ( $\leq 100$ )
	13	24		
Diesel Range (C10-C25)	59	59		0

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011403

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-27-112020	011403-01	Water	11/20/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

## **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 011403**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 011403**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 011403**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	SA	
VIII.	Matrix spike/Matrix spike duplicates	N	Non client
IX.	Laboratory control samples	A	LCS ID
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-27-112020	011403-01	Water	11/20/20
2				
3				
4				
5				
6				
7				
8				
9				

Notes:

1	00-2550 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011403

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-27-112020	011403-01	Water	11/20/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
011403**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 011403**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 011403**

No Sample Data Qualified in this SDG

LDC #: 49889C7

# VALIDATION COMPLETENESS WORKSHEET

Date: 12/21/20

SDG #: 011403

Level II

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Non client
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-27-112020	011403-01	Water	11/20/20
2				
3				
4				
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10				
11				
12				

Notes:

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**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** December 29, 2020  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011403

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-27-112020	011403-01	Water	11/20/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## V. Field Blanks

No field blanks were identified in this SDG.

## VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Compound	Flag	A or P
MW-27-112020	ortho-Terphenyl	151 (47-140)	All compounds	NA	-

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 011403**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 011403**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 011403**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS10
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-27-112020	011403-01	Water	11/20/20
2				
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12				

Notes:

1	00-2585 MB				





## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[Jyabandeh@aspectconsulting.com](mailto:Jyabandeh@aspectconsulting.com)

January 14, 2021

SUBJECT: Revised Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the revised validation reports for the fractions listed below. This SDG was received on December 14, 2020. Attachment 1 is a summary of the samples that were reviewed for each analysis.

- FD evaluation updated to include Benzene results.

### LDC Project #49980\_RV1:

<u>SDG #</u>	<u>Fraction</u>
011402	Volatiles, Helium, Fixed Gases

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan, February 2019
- USEPA Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6; September 2016
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

Please feel free to contact us if you have any questions.

Sincerely,

*Christina Rink*

Christina Rink  
[crink@lab-data.com](mailto:crink@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** January 14, 2021

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 011402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-02-112020	011402-01	Air	11/20/20
GP-03-112020	011402-02	Air	11/20/20
GP-05-112020	011402-03	Air	11/20/20
GP-06-112020	011402-04	Air	11/20/20
SV-DUP-112020	011402-05	Air	11/20/20
Trip Blank	011402-06	Air	11/20/20
GP-02-112020DUP	011402-01DUP	Air	11/20/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples GP-05-112020 and SV-DUP-112020 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-05-112020	SV-DUP-112020		
Benzene	7.1	5.8	-	1.3 (≤28)
m,p-Xylene	37U	37	-	0 (≤74)

### **XI. Internal Standards**

Internal standards data were not reviewed for Stage 2A validation.

### **XII. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

### **XIII. Target Compound Identifications**

Raw data were not reviewed for Stage 2A validation.

### **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 011402**

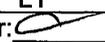
No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

LDC #: 49980A48a  
 SDG #: 011402  
 Laboratory: Friedman & Bruya, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 01/05/21  
 Page: 1 of 1  
 Reviewer: LT  
 2nd Reviewer: 

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks/Canister Blanks	A/A	Individually certified
VI.	Field blanks	ND	TB = 6
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates/DUP	N/A	(7)
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 3 + 5
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	N	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	GP-02-112020	011402-01	Air	11/20/20
2	GP-03-112020	011402-02	Air	11/20/20
3	GP-05-112020	011402-03	Air	11/20/20
4	GP-06-112020	011402-04	Air	11/20/20
5	SV-DUP-112020	011402-05	Air	11/20/20
6	Trip Blank	011402-06	Air	11/20/20
7	GP-02-112020DUP	011402-01DUP	Air	11/20/20
8				

Notes:

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## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC/MS VOA (TO-15)

Compound	Concentration (ug/m3)		RPD (≤35)	Diff	Diff Limit
	3	5			
V	7.1	5.8		1.3	(≤28)
RRR	37U	37		0	(≤74)

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** January 6, 2021

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 011402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-02-112020	011402-01	Air	11/20/20
GP-03-112020	011402-02	Air	11/20/20
GP-05-112020	011402-03	Air	11/20/20
GP-06-112020	011402-04	Air	11/20/20
SV-DUP-112020	011402-05	Air	11/20/20
SV-DUP-112020DL	011402-05DL	Air	11/20/20
Trip Blank	011402-06	Air	11/20/20
GP-02-112020DUP	011402-01DUP	Air	11/20/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples GP-05-112020 and SV-DUP-112020 and samples GP-05-112020 and SV-DUP-112020DL were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-05-112020	SV-DUP-112020		
APH EC5-8 aliphatics	22000	24000	9 (≤35)	-
APH EC9-12 aliphatics	5000	6000	-	1000 (≤4300)

## XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

## XII. Compound Quantitation

All compound quantitations met validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
SV-DUP-112020	APH EC5-8 aliphatics	Sample result exceeded calibration range.	Reported result should be within calibration range.	J (all detects)	A

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Compound Identifications

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Reason	Flag	A or P
SV-DUP-112020DL	APH EC5-8 aliphatics	Results from undiluted analyses were more usable.	DNR	-

Due to results exceeding the calibration range, data were qualified as estimated in one sample.

No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 011402**

Sample	Compound	Flag	A or P	Reason
SV-DUP-112020	APH EC5-8 aliphatics	J (all detects)	A	Compound quantitation (exceeded range)
SV-DUP-112020DL	APH EC5-8 aliphatics	DNR	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

LDC #: 49980A48b

**VALIDATION COMPLETENESS WORKSHEET**

Date: 01/05/21

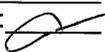
SDG #: 011402

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: 

**METHOD:** GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks/Canister Blanks	A/A	Individually certified
VI.	Field blanks	ND	TB = 7
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates/DUP	N/A	(8)
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 3 + 5, 3 + 6
XI.	Internal standards	N	
XII.	Compound quantitation RL/LOQ/LODs	SW	
XIII.	Target compound identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	SW	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-02-112020	011402-01	Air	11/20/20
2	GP-03-112020	011402-02	Air	11/20/20
3	GP-05-112020	011402-03	Air	11/20/20
4	GP-06-112020	011402-04	Air	11/20/20
5	SV-DUP-112020	011402-05	Air	11/20/20
6	SV-DUP-112020DL	011402-05DL	Air	11/20/20
7	Trip Blank	011402-06	Air	11/20/20
8	GP-02-112020DUP	011402-01DUP	Air	11/20/20

Notes:

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**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GC/MS VOA (MA-APH)

Compound	Concentration (ug/m3)		RPD (≤35)	Diff (≤4300)
	3	5		
APH EC5-8 aliphatics	22000	24000	9	
APH EC9-12 aliphatics	5000	6000		1000





## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** January 6, 2021  
**Parameters:** Helium  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 011402

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-02-112020	011402-01	Air	11/20/20
GP-03-112020	011402-02	Air	11/20/20
GP-05-112020	011402-03	Air	11/20/20
GP-06-112020	011402-04	Air	11/20/20
GP-02-112020DUP	011402-01DUP	Air	11/20/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Helium by American Society for Testing and Materials (ASTM) D1946

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were not required by the method.

## **VIII. Field Duplicates**

No field duplicates were identified in this SDG.

## **IX. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **X. Target Compound Identification**

Raw data were not reviewed for Stage 2A validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Helium - Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Helium - Laboratory Blank Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Helium - Field Blank Data Qualification Summary - SDG 011402**

No Sample Data Qualified in this SDG

LDC #: 49980A50

**VALIDATION COMPLETENESS WORKSHEET**

Date: 01/05/21

SDG #: 011402

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: LT

2nd Reviewer: 

**METHOD:** GC Helium (ASTM D1946)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks/Canister Blanks	A/A	Individually certified
V.	Field blanks	N	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates/DUP	N/A	(5)
VIII.	Laboratory control samples	N	
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-02-112020	011402-01	Air	11/20/20
2	GP-03-112020	011402-02	Air	11/20/20
3	GP-05-112020	011402-03	Air	11/20/20
4	GP-06-112020	011402-04	Air	11/20/20
5	GP-02-112020DUP	011402-01DUP	Air	11/20/20
6				
7				
8				
9				
10				
11				
12				

Notes:

1	MB					

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** January 6, 2021  
**Parameters:** Fixed Gases  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc./Fremont Analytical  
**Sample Delivery Group (SDG):** 011402/2011458

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-02-112020	011402-01/2011458-001	Air	11/20/20
GP-03-112020	011402-02/2011458-002	Air	11/20/20
GP-05-112020	011402-03/2011458-003	Air	11/20/20
GP-06-112020	011402-04/2011458-004	Air	11/20/20
GP-02-112020DUP	011402-01/2011458-001DUP	Air	11/20/20

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Fixed Gases by Method 3C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks are not required for this method.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **VIII. Field Duplicates**

No field duplicates were identified in this SDG.

## **IX. Compound Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **X. Target Compound Identification**

Raw data were not reviewed for Stage 2A validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Fixed Gases - Data Qualification Summary - SDG 011402/2011458**

No Sample Data Qualified in this SDG

**Aloha Café  
Fixed Gases - Laboratory Blank Data Qualification Summary - SDG  
011402/2011458**

No Sample Data Qualified in this SDG

**Aloha Café  
Fixed Gases - Field Blank Data Qualification Summary - SDG 011402/2011458**

No Sample Data Qualified in this SDG

LDC #: 49980A51

**VALIDATION COMPLETENESS WORKSHEET**

Date: 01/05/21

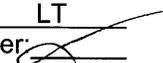
SDG #: 011402/2011458

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc./Fremont Analytical

Reviewer: LT

2nd Reviewer: 

**METHOD:** GC Fixed Gases (Method 3C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	N	Tedlar bags
V.	Field blanks	N	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates/DUP	N/A	(5)
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Compound quantitation RL/LOQ/LODs	N	
XI.	Target compound identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Sub lab ID	Lab ID	Matrix	Date
1	GP-02-112020	2011458-001	011402-01	Air	11/20/20
2	GP-03-112020	2011458-002	011402-02	Air	11/20/20
3	GP-05-112020	2011458-003	011402-03	Air	11/20/20
4	GP-06-112020	2011458-004	011402-04	Air	11/20/20
5	GP-02-112020DUP	2011458-001DUP	011402-01DUP	Air	11/20/20
6					
7					
8					
9					
10					
11					
12					
13					

Notes:




## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[jyabandeh@aspectconsulting.com](mailto:jyabandeh@aspectconsulting.com)

August 26, 2021

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on August 5, 2021. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #51761:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
107311/2107355	Volatiles, Helium, Fixed Gases

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6 (September 2016)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017)

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink  
Project Manager/Senior Chemist  
[crink@lab-data.com](mailto:crink@lab-data.com)

Stage 2A EDD

**LDC# 51761 (Aspect Consulting, LLC - Seattle, WA / Aloha Cafe)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (TO-15)		VOA (MA-APH)		Helium (D1946)		Fixed Gases (3C)																										
				A	S	A	S	A	S	A	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	
A	107311/2107355	08/05/21	08/26/21	8	0	8	0	5	0	5	0																									
Matrix: Air/Water/Soil																																				
Total				J/CR				8	0	8	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26

Shaded cells indicate Stage 4 validation (all other cells are Stage 2A validation). These sample counts do not include MS, MSD, or DUP's.

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** August 18, 2021

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 107311

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-02-072021	107311-01	Air	07/20/21
GP-03-072021	107311-02	Air	07/20/21
GP-05-072021	107311-03	Air	07/20/21
GP-06-072021	107311-04	Air	07/20/21
GP-Dup-072021	107311-05	Air	07/20/21
BA-01-072021	107311-06	Air	07/20/21
IA-01-072021	107311-07	Air	07/20/21
IA-02-072021	107311-08	Air	07/20/21
GP-Dup-072021DUP	107311-05DUP	Air	07/20/21

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), USEPA Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6 (September 2016) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples GP-03-072021 and GP-Dup-072021 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-072021	GP-Dup-072021		
Benzene	8.0	7.9	-	0.1 (≤5.0)
Ethylbenzene	13	12	-	1 (≤5.8)
m,p-Xylene	49	45	-	4 (≤20)
o-Xylene	16	15	-	1 (≤7.0)

## XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

## XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Leak Check Compounds

The leak check compound, Helium, was not detected in samples.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

LDC #: 51761A48a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 08/16/21

SDG #: 107311

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: JVG

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	N/A	
VIII.	Matrix spike/Matrix spike duplicates /LD	N/A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 2/5
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	A	Helium
XVI.	Overall assessment of data	A	

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1 <sup>+</sup>	GP-02-072021	107311-01	Air	07/20/21
2 <sup>+</sup>	GP-03-072021 D	107311-02	Air	07/20/21
3 <sup>+</sup>	GP-05-072021	107311-03	Air	07/20/21
4 <sup>+</sup>	GP-06-072021	107311-04	Air	07/20/21
5 <sup>+</sup>	GP-Dup-072021 D	107311-05	Air	07/20/21
6 <sup>-</sup>	BA-01-072021	107311-06	Air	07/20/21
7 <sup>+</sup>	IA-01-072021	107311-07	Air	07/20/21
8 <sup>-</sup>	IA-02-072021	107311-08	Air	07/20/21
9	5 DUP	1 - 05 DUP	1	1

Notes:

1	01-1591 MB				

(BTEX + Naphthalene)

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.	Z2.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GC MS Volatiles (EPA Method TO15)

Compound	Concentration (ug/m3)		RPD ( $\leq 35\%$ )	Difference (ug/m3)	Limits ( $\pm 2 \times \text{LOQ}$ )
	2	5			
V	8.0	7.9		0.1	$\leq 5.0$
EE	13	12		1	$\leq 5.8$
RRR	49	45		4	$\leq 20$
SSS	16	15		1	$\leq 7.0$

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** August 18, 2021

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc.

**Sample Delivery Group (SDG):** 107311

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-02-072021	107311-01	Air	07/20/21
GP-03-072021	107311-02	Air	07/20/21
GP-05-072021	107311-03	Air	07/20/21
GP-06-072021	107311-04	Air	07/20/21
GP-Dup-072021	107311-05	Air	07/20/21
BA-01-072021	107311-06	Air	07/20/21
IA-01-072021	107311-07	Air	07/20/21
IA-02-072021	107311-08	Air	07/20/21
GP-Dup-072021DUP	107311-05DUP	Air	07/20/21

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples GP-03-072021 and GP-Dup-072021 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-072021	GP-Dup-072021		
APH EC5-8 aliphatics	4500	4000	12 (≤35)	-
APH EC9-12 aliphatics	740	950	25 (≤35)	-

## XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

## XII. Target Analyte Quantitation

All analyte quantitations met validation criteria with the following exceptions:

Sample	Analyte	Finding	Flag	A or P
GP-03-072021 GP-05-072021 GP-Dup-072021	APH EC5-8 aliphatics	Results exceeded calibration range.	J (all detects)	P

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to results exceeding calibration range, data were qualified as estimated in three samples.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 107311**

<b>Sample</b>	<b>Analyte</b>	<b>Flag</b>	<b>A or P</b>	<b>Reason</b>
GP-03-072021 GP-05-072021 GP-Dup-072021	APH EC5-8 aliphatics	J (all detects)	P	Target analyte quantitation (exceeded range)

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

LDC #: 51761A48b

**VALIDATION COMPLETENESS WORKSHEET**

Date: 08/16/21

SDG #: 107311

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: *JK*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	*A	
VIII.	Matrix spike/Matrix spike duplicates <i>(LD)</i>	N/A	
IX.	Laboratory control samples	A	<i>LCS</i>
X.	Field duplicates	SW	<i>D = 2/5</i>
XI.	Internal standards	N	
XII.	Target analyte quantitation	SW	
XIII.	Target analyte identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	.	
XVI.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-02-072021	107311-01	Air	07/20/21
2	GP-03-072021 <i>b</i>	107311-02	Air	07/20/21
3	GP-05-072021	107311-03	Air	07/20/21
4	GP-06-072021	107311-04	Air	07/20/21
5	GP-Dup-072021 <i>D</i>	107311-05	Air	07/20/21
6	BA-01-072021	107311-06	Air	07/20/21
7	IA-01-072021	107311-07	Air	07/20/21
8	IA-02-072021	107311-08	Air	07/20/21
9	GP-Dup-072021DUP	107311-05DUP	Air	07/20/21
10				

Notes:

<i>01-1591 MB</i>				

(APH = Air-Phase Petroleum Hydrocarbons)  
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**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GC MS Volatiles (MA-APH)

Compound	Concentration (ug/m3)		RPD ( $\leq 35\%$ )	Difference (ug/m3)	Limits ( $\pm 2 \times \text{LOQ}$ )
	2	5			
APC EC5-8 aliphatics	4500	4000	12		
APC EC9-12 aliphatics	740	950	25		

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** August 23, 2021  
**Parameters:** Helium  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc.  
**Sample Delivery Group (SDG):** 107311

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-02-072021	107311-01	Air	07/20/21
GP-03-072021	107311-02	Air	07/20/21
GP-05-072021	107311-03	Air	07/20/21
GP-06-072021	107311-04	Air	07/20/21
GP-Dup-072021	107311-05	Air	07/20/21
GP-02-072021DUP	107311-01DUP	Air	07/20/21

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Helium by American Society for Testing and Materials (ASTM) D1946

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VII. Laboratory Control Samples**

Laboratory control samples are not required by the method.

## **VIII. Field Duplicates**

Samples GP-03-072021 and GP-Dup-072021 were identified as field duplicates. No results were detected in any of the samples.

## **IX. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **X. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XI. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Helium - Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Helium - Laboratory Blank Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Helium - Field Blank Data Qualification Summary - SDG 107311**

No Sample Data Qualified in this SDG

LDC #: 51761A50

**VALIDATION COMPLETENESS WORKSHEET**

Date: 08/10/21

SDG #: 107311

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc.

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC Helium (ASTM D1946)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	N	
IX.	Field duplicates	ND	D = 2/5
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	GP-02-072021	107311-01	Air	07/20/21
2	GP-03-072021	107311-02	Air	07/20/21
3	GP-05-072021	107311-03	Air	07/20/21
4	GP-06-072021	107311-04	Air	07/20/21
5	GP-Dup-072021	107311-05	Air	07/20/21
6	1 DUP	L-01 DUP	L	L
7				
8				
9				
10				
11				
12				

Notes:

-	01-1600 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café

**LDC Report Date:** August 18, 2021

**Parameters:** Fixed Gases

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc./Fremont Analytical

**Sample Delivery Group (SDG):** 107311/2107355

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
GP-02-072021	107311-01/2107355-001	Air	07/20/21
GP-03-072021	107311-02/2107355-002	Air	07/20/21
GP-05-072021	107311-0/32107355-003	Air	07/20/21
GP-06-072021	107311-04/2107355-004	Air	07/20/21
GP-Dup-072021	107311-05/2107355-005	Air	07/20/21
GP-02-072021DUP	107311-01DUP/2107355-001DUP	Air	07/20/21

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Fixed Gases by Method 3C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG 107311/2107355	All analytes	No method blank associated with these samples.	Method blanks required for all samples.	J (all detects) UJ (all non-detects)	P

## V. Field Blanks

No field blanks were identified in this SDG.

## VI. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## VIII. Field Duplicates

Samples GP-03-072021 and GP-Dup-072021 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (%)		RPD (Limits)	Difference (Limits)
	GP-03-072021	GP-Dup-072021		
Carbon disulfide	25.0	22.1	12 ( $\leq 35$ )	-
Oxygen	3.12	6.17	66 ( $\leq 35$ )	-

### IX. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

### X. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

### XI. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to no method blank, data were qualified as estimated in five samples.

**Aloha Café**  
**Fixed Gases - Data Qualification Summary - SDG 107311/2107355**

Sample	Analyte	Flag	A or P	Reason
GP-02-072021 GP-03-072021 GP-05-072021 GP-06-072021 GP-Dup-072021	All analytes	J (all detects) UJ (all non-detects)	P	Method blanks (not performed)

**Aloha Café**  
**Fixed Gases - Laboratory Blank Data Qualification Summary - SDG 107311/2107355**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Fixed Gases - Field Blank Data Qualification Summary - SDG 107311/2107355**

No Sample Data Qualified in this SDG

LDC #: 51761A51

**VALIDATION COMPLETENESS WORKSHEET**

Date: 05/16/21

SDG #: 107311/2107355

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc./Fremont Analytical

Reviewer: JMc

2nd Reviewer: [Signature]

**METHOD:** GC Fixed Gases (Method 3C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	SW	
V.	Field blanks	N	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	SW	D = 2/5
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Sub Lab ID	Lab ID	Matrix	Date
1	GP-02-072021	2107395-001	107311-01	Air	07/20/21
2	GP-03-072021 D	-002	107311-02	Air	07/20/21
3	GP-05-072021	-003	107311-03	Air	07/20/21
4	GP-06-072021	-004	107311-04	Air	07/20/21
5	GP-Dup-072021 D	-005	107311-05	Air	07/20/21
6	GP-02-072021DUP E	-001 DUP	107311-01DUP	Air	07/20/21
7					
8					
9					
10					
11					
12					

Notes:


LDC #: 51761 AS1

# VALIDATION FINDINGS WORKSHEET

## Blanks

Page: 1 of 1  
Reviewer: JVG

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a given method blank?

Y N N/A Was a method blank performed for each matrix and whenever a sample extraction procedure was performed?

Y N N/A Was a method blank performed with each extraction batch?

Y N N/A Were any contaminants found in the method blanks? If yes, please see findings below.

**Level IV/D Only**

Y N N/A (Gasoline and aromatics only) Was a method blank analyzed with each 24 hour batch?

Y N N/A Was a method blank analyzed for each analytical / extraction batch of  $\leq 20$  samples?

Blank extraction date: \_\_\_\_\_ Blank analysis date: \_\_\_\_\_

Associated samples: All => J/US/P

Conc. units: \_\_\_\_\_

Compound	Blank ID	Sample Identification					
No method blank performed.							

Blank extraction date: \_\_\_\_\_ Blank analysis date: \_\_\_\_\_

Associated samples: \_\_\_\_\_

Conc. units: \_\_\_\_\_

Compound	Blank ID	Sample Identification					

ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

All contaminants within five times the method blank concentration were qualified as not detected, "U".

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GC Fixed Gases (Method 3C)

Compound	Concentration (%)		RPD ( $\leq 35\%$ )	Difference (%)	Limits ( $\pm 2 \times \text{LOQ}$ )
	2	5			
Carbon disulfide	25.0	22.1	12		
Oxygen	3.12	6.17	66		



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[jyabandeh@aspectconsulting.com](mailto:jyabandeh@aspectconsulting.com)

February 7, 2022

SUBJECT: Aloha Café, Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on January 10, 2022. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #53142:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
112342	Volatiles

The data validation was performed under Stage 2A guidelines. The analyses were validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink  
Project Manager/Senior Chemist  
[crink@lab-data.com](mailto:crink@lab-data.com)



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 3, 2022

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 112342

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IA-125-1-121521	112342-01	Air	12/15/21
IA-125-2-121521	112342-02	Air	12/15/21
CS-125-121521	112342-03	Air	12/15/21
CS-127-121521	112342-04	Air	12/15/21
CS-129-121521	112342-05	Air	12/15/21
AMB-1-121521	112342-06	Air	12/15/21
IA-131-1-121521	112342-07	Air	12/15/21
IA-FD-121521	112342-08	Air	12/15/21
IA-127-1-121521	112342-09	Air	12/15/21
IA-127-2-121521	112342-10	Air	12/15/21
IA-129-1-121521	112342-11	Air	12/15/21
IA-129-2-121521	112342-12	Air	12/15/21
AMB-2-121521	112342-13	Air	12/15/21
GP-02-121621	112342-14	Air	12/16/21
GP-03-121621	112342-15	Air	12/16/21
FD-121621	112342-16	Air	12/16/21
GP-06-121621	112342-17	Air	12/16/21
TB-121621	112342-18	Air	12/16/21

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample TB-121621 was identified as a trip blank. No contaminants were found.

Samples AMB-1-121521 and AMB-2-121521 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-121521	Benzene m,p-Xylenes Naphthalene	0.43 ug/m <sup>3</sup> 1.0 ug/m <sup>3</sup> 0.068 ug/m <sup>3</sup>
AMB-2-121521	Benzene m,p-Xylenes	0.45 ug/m <sup>3</sup> 1.2 ug/m <sup>3</sup>

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

### VIII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### X. Field Duplicates

Samples IA-131-1-121521 and IA-FD-121521 and samples GP-03-121621 and FD-121621 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	IA-131-1-121521	IA-FD-121521		
Benzene	1.5	1.5	-	0.00 (≤0.64)
Ethylbenzene	0.57	0.58	-	0.01 (≤0.86)
m,p-Xylenes	1.8	1.9	-	0.1 (≤0.74)
o-Xylene	0.52	0.53	-	0.01 (≤0.86)
Naphthalene	0.40	0.42	-	0.02 (≤0.52)

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-121621	FD-121621		
m,p-Xylenes	6.5	6.2	5 (≤35)	-
o-Xylene	3.0	3.0	0 (≤35)	-

### XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

### XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

### **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

### **XIV. System Performance**

Raw data were not reviewed for Stage 2A validation.

### **XV. Leak Check Compounds**

The leak check compound, Helium, was not detected in samples.

### **XV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 112342**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 112342**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 112342**

No Sample Data Qualified in this SDG

LDC #: 53142A48a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 6/28/27

SDG #: 112342

Stage 2A

Page: 1 of 7

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Reviewer: JVL

2nd Reviewer: **METHOD:** GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	SW	TB = 18 AB = 6, 13
VII.	Surrogate spikes	N A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 7/8 15/16
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	IA-125-1-121521	112342-01	Air	12/15/21
2	IA-125-2-121521	112342-02	Air	12/15/21
3	CS-125-121521	112342-03	Air	12/15/21
4	CS-127-121521	112342-04	Air	12/15/21
5	CS-129-121521	112342-05	Air	12/15/21
6	AMB-1-121521	112342-06	Air	12/15/21
7	IA-131-1-121521	112342-07	Air	12/15/21
8	IA-FD-121521	112342-08	Air	12/15/21
9	IA-127-1-121521	112342-09	Air	12/15/21
10	IA-127-2-121521	112342-10	Air	12/15/21
11	IA-129-1-121521	112342-11	Air	12/15/21
12	IA-129-2-121521	112342-12	Air	12/15/21
13	AMB-2-121521	112342-13	Air	12/15/21

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

	Client ID	Lab ID	Matrix	Date
14	GP-02-121621	112342-14	Air	12/16/21
15	GP-03-121621 <i>Dr</i>	112342-15	Air	12/16/21
16	FD-121621 <i>Dr</i>	112342-16	Air	12/16/21
17	GP-06-121621	112342-17	Air	12/16/21
18	TB-121621	112342-18	Air	12/16/21
19				
20				
21				

Notes:

-	01-2840-1MB						
	01-2855-1						

(BTEX + Naphthalene only)

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. P-Diethylbenzene	Z2.

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** GC/MS VOA (EPA Method TO-15)

Y N N/A      Were field blanks identified in this SDG?  
Y N N/A      Were target compounds detected in the field blanks?

**Sample:** 6      Field Blank / Other AB

Compound	Concentration units ( ug/m3 )
V	0.43
RRR	1.0
MMM	0.068

**Sample:** 13      Field Blank / Other AB

Compound	Concentration units ( ug/m3 )
V	0.45
RRR	1.2

**Sample:** \_\_\_\_\_ Field Blank / Other \_\_\_\_\_

Compound	Concentration units (      )

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

**METHOD:** GCMS VOA (EPA Method TO15)

Compound	Concentration (ug/m3)		RPD (≤35%)	Difference (ug/m3)	Limits (±2xLOQ)	Qualifications (Parent Only)
	7	8				
V	1.5	1.5		0.00	≤0.64	
EE	0.57	0.58		0.01	≤0.86	
RRR	1.8	1.9		0.1	≤1.74	
SSS	0.52	0.53		0.01	≤0.86	
MMM	0.40	0.42		0.02	≤0.52	

Compound	Concentration (ug/m3)		RPD (≤35%)	Difference (ug/m3)	Limits (±2xLOQ)	Qualifications (Parent Only)
	15	16				
RRR	6.5	6.2	5			
SSS	3.0	3.0	0			

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 4, 2022

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 112342

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IA-125-1-121521	112342-01	Air	12/15/21
IA-125-2-121521	112342-02	Air	12/15/21
CS-125-121521	112342-03	Air	12/15/21
CS-127-121521	112342-04	Air	12/15/21
CS-129-121521	112342-05	Air	12/15/21
AMB-1-121521	112342-06	Air	12/15/21
IA-131-1-121521	112342-07	Air	12/15/21
IA-FD-121521	112342-08	Air	12/15/21
IA-127-1-121521	112342-09	Air	12/15/21
IA-127-2-121521	112342-10	Air	12/15/21
IA-129-1-121521	112342-11	Air	12/15/21
IA-129-2-121521	112342-12	Air	12/15/21
AMB-2-121521	112342-13	Air	12/15/21
GP-02-121621	112342-14	Air	12/16/21
GP-03-121621	112342-15	Air	12/16/21
FD-121621	112342-16	Air	12/16/21
GP-06-121621	112342-17	Air	12/16/21
TB-121621	112342-18	Air	12/16/21

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample TB-121621 was identified as a trip blank. No contaminants were found.

Samples AMB-1-121521 and AMB-2-121521 were identified as ambient blanks. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## X. Field Duplicates

Samples IA-131-1-121521 and IA-FD-121521 and samples GP-03-121621 and FD-121621 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	IA-131-1-121521	IA-FD-121521		
APH EC5-8 aliphatics	110	120	-	10.00 (≤150)
APH EC9-12 aliphatics	34	39	-	5 (≤50)

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (Limits)	Difference (Limits)
	GP-03-121621	FD-121621		
APH EC5-8 aliphatics	3600	3400	6 (≤35)	-
APH EC9-12 aliphatics	590	600	2 (≤35)	-

## XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

## XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

## XIV. System Performance

Raw data were not reviewed for Stage 2A validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 112342**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 112342**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 112342**

No Sample Data Qualified in this SDG

LDC #: 53142A48b

**VALIDATION COMPLETENESS WORKSHEET**

Date: 01/28/27

SDG #: 112342

Stage 2A

Page: 1 of 7

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: NLE

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 18 AB = 6, 13
VII.	Surrogate spikes	N/A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 7/8, 15/16
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	System performance	N	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1 <sup>+</sup>	IA-125-1-121521	112342-01	Air	12/15/21
2 <sup>1</sup>	IA-125-2-121521	112342-02	Air	12/15/21
3 <sup>-</sup>	CS-125-121521	112342-03	Air	12/15/21
4 <sup>-</sup>	CS-127-121521	112342-04	Air	12/15/21
5 <sup>-</sup>	CS-129-121521	112342-05	Air	12/15/21
6 <sup>-</sup>	AMB-1-121521	112342-06	Air	12/15/21
7 <sup>+</sup>	IA-131-1-121521	D <sub>1</sub> 112342-07	Air	12/15/21
8 <sup>+</sup>	IA-FD-121521	D <sub>1</sub> 112342-08	Air	12/15/21
9 <sup>+</sup>	IA-127-1-121521	112342-09	Air	12/15/21
10 <sup>+</sup>	IA-127-2-121521	112342-10	Air	12/15/21
11 <sup>+</sup>	IA-129-1-121521	112342-11	Air	12/15/21
12 <sup>+</sup>	IA-129-2-121521	112342-12	Air	12/15/21
13 <sup>-</sup>	AMB-2-121521	112342-13	Air	12/15/21

LDC #: 53142A48b

# VALIDATION COMPLETENESS WORKSHEET

Date: 01/28/27

SDG #: 112342

Stage 2A

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *JV*

2nd Reviewer: *[Signature]*

METHOD: GC/MS Volatiles (MA-APH)

	Client ID	Lab ID	Matrix	Date
↓ 14	GP-02-121621	112342-14	Air	12/16/21
↑ 15	GP-03-121621 <i>Dr</i>	112342-15	Air	12/16/21
↑ 16	FD-121621 <i>Dr</i>	112342-16	Air	12/16/21
↓ 17	GP-06-121621	112342-17	Air	12/16/21
↑ 18	TB-121621	112342-18	Air	12/16/21
19				
20				
21				

Notes:

-1	01-2855 MB						
-2	01-2840 - ↓						

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. p-Diethylbenzene	Z2.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GCMS VOA (MA-APH)

Compound	Concentration (ug/m3)		RPD ( $\leq 35\%$ )	Difference (ug/m3)	Limits ( $\pm 2xQ$ )	Qualifications (Parent Only)
	7	8				
APH EC5-8 aliphatics	110	120		10.00	$\leq 150$	
APH EC9-12 aliphatics	34	39		5	$\leq 50$	

Compound	Concentration (ug/m3)		RPD ( $\leq 35\%$ )	Difference (ug/m3)	Limits ( $\pm 2xQ$ )	Qualifications (Parent Only)
	15	16				
APH EC5-8 aliphatics	3600	3400	6			
APH EC9-12 aliphatics	590	600	2			



## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[jyabandeh@aspectconsulting.com](mailto:jyabandeh@aspectconsulting.com)

April 18, 2023

SUBJECT: Aloha Café - Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on January 19, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

**Revision:**

209531

Volatiles – Added qualifiers to sample SW-N10-447 due to surrogate %R.

301030

Volatiles – Added a qualifier for benzene for sample PL-N10-442 due to result < RL.

**LDC Project #55997 RV1:**

**SDG #**

209417, 209531, 210015, 210033, 210054, 210102,  
210145, 210214, 210237, 210253, 210272, 210320,  
210372, 210402, 210437, 212097, 212149, 212189,  
301007, 301030

**Fraction**

Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Extractables, Polychlorinated Biphenyls, Metals

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA Region 2 Standard Operating Procedure for the Evaluation of Metals for the Contract Laboratory Program, SOP HW-2b, Revision 15 (December 2012)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco  
[scuenco@lab-data.com](mailto:scuenco@lab-data.com)  
Project Manager/Senior Chemist



**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 209417

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W02-444	209417-01	Soil	09/26/22
SW-W04-444	209417-02	Soil	09/26/22
SW-W06-444	209417-03	Soil	09/26/22
SW-W08-444	209417-04	Soil	09/26/22
SW-W10-444	209417-05	Soil	09/26/22
SW-W12-444	209417-06	Soil	09/26/22
SW-W14-444	209417-07	Soil	09/26/22
SW-W16-444	209417-08	Soil	09/26/22
SW-N01-444	209417-09	Soil	09/26/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 209417**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 209417**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 209417**

No Sample Data Qualified in this SDG

LDC #: 55997A1a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 209417

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 02/22/23

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W02-444	209417-01	Soil	09/26/22
2	SW-W04-444	209417-02	Soil	09/26/22
3	SW-W06-444	209417-03	Soil	09/26/22
4	SW-W08-444	209417-04	Soil	09/26/22
5	SW-W10-444	209417-05	Soil	09/26/22
6	SW-W12-444	209417-06	Soil	09/26/22
7	SW-W14-444	209417-07	Soil	09/26/22
8	SW-W16-444	209417-08	Soil	09/26/22
9	SW-N01-444	209417-09	Soil	09/26/22
10				

Notes:

- 02-2297 MP					

BTEX + Naphthalene

(All ND)

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 209417

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W02-444	209417-01	Soil	09/26/22
SW-W04-444	209417-02	Soil	09/26/22
SW-W06-444	209417-03	Soil	09/26/22
SW-W08-444	209417-04	Soil	09/26/22
SW-W10-444	209417-05	Soil	09/26/22
SW-W12-444	209417-06	Soil	09/26/22
SW-W14-444	209417-07	Soil	09/26/22
SW-W16-444	209417-08	Soil	09/26/22
SW-N01-444	209417-09	Soil	09/26/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
209417**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 209417**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 209417**

No Sample Data Qualified in this SDG

LDC #: 55997A7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 209417

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*  
2nd Reviewer: \_\_\_\_\_

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W02-444	209417-01	Soil	09/26/22
2	SW-W04-444	209417-02	Soil	09/26/22
3	SW-W06-444	209417-03	Soil	09/26/22
4	SW-W08-444	209417-04	Soil	09/26/22
5	SW-W10-444	209417-05	Soil	09/26/22
6	SW-W12-444	209417-06	Soil	09/26/22
7	SW-W14-444	209417-07	Soil	09/26/22
8	SW-W16-444	209417-08	Soil	09/26/22
9	SW-N01-444	D 209417-09	Soil	09/26/22
10				
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Notes:

1	02-2102 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 209417

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W02-444	209417-01	Soil	09/26/22
SW-W04-444	209417-02	Soil	09/26/22
SW-W06-444	209417-03	Soil	09/26/22
SW-W08-444	209417-04	Soil	09/26/22
SW-W10-444	209417-05	Soil	09/26/22
SW-W12-444	209417-06	Soil	09/26/22
SW-W14-444	209417-07	Soil	09/26/22
SW-W16-444	209417-08	Soil	09/26/22
SW-N01-444	209417-09	Soil	09/26/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 209417**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 209417**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 209417**

No Sample Data Qualified in this SDG

LDC #: 55997A8

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 209417

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W02-444	209417-01	Soil	09/26/22
2	SW-W04-444	209417-02	Soil	09/26/22
3	SW-W06-444	209417-03	Soil	09/26/22
4	SW-W08-444	209417-04	Soil	09/26/22
5	SW-W10-444	209417-05	Soil	09/26/22
6	SW-W12-444	209417-06	Soil	09/26/22
7	SW-W14-444	209417-07	Soil	09/26/22
8	SW-W16-444	209417-08	Soil	09/26/22
9	SW-N01-444	209417-09	Soil	09/26/22
10				
11				
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13				

Notes:

+ 62-2782 kb				

(All ND)

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** April 18, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 209531

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-N02-447	209531-01	Soil	09/29/22
SW-N04-447	209531-02	Soil	09/30/22
SW-N07-447	209531-03	Soil	09/30/22
SW-N10-447	209531-04	Soil	09/30/22
SW-N12-447	209531-05	Soil	09/30/22
SW-N14-447	209531-06	Soil	09/30/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

No field blanks were identified in this SDG.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Analyte	Flag	A or P
SW-N10-447	Toluene-d8 Bromofluorobenzene	126 (89-112) 126 (84-115)	All analytes	J (all detects)	P

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were not within QC limits. No data were qualified since there were no associated samples in this SDG. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate %R, data were qualified as estimated in one sample.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 209531**

<b>Sample</b>	<b>Analyte</b>	<b>Flag</b>	<b>A or P</b>	<b>Reason</b>
SW-N10-447	All analytes	J (all detects)	P	Surrogates (%R)

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 209531**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 209531**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	SW	
VIII.	Matrix spike/Matrix spike duplicates	SW	210015-01 (No associated sample - NG)
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-N02-447	209531-01	Soil	09/29/22
2	SW-N04-447	209531-02	Soil	09/30/22
3	SW-N07-447	209531-03	Soil	09/30/22
4	SW-N10-447	209531-04	Soil	09/30/22
5	SW-N12-447	209531-05	Soil	09/30/22
6	SW-N14-447	209531-06	Soil	09/30/22
7				
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Notes:

-	02-2312 Mt				

BTEX + Naphthalene



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 209531

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-N02-447	209531-01	Soil	09/29/22
SW-N04-447	209531-02	Soil	09/30/22
SW-N07-447	209531-03	Soil	09/30/22
SW-N10-447	209531-04	Soil	09/30/22
SW-N12-447	209531-05	Soil	09/30/22
SW-N14-447	209531-06	Soil	09/30/22
SW-N02-447DUP	209531-01DUP	Soil	09/29/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
209531**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 209531**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 209531**

No Sample Data Qualified in this SDG

LDC #: 55997B7

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 209531

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	LD N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-N02-447	209531-01	Soil	09/29/22
2	SW-N04-447	209531-02	Soil	09/30/22
3+	SW-N07-447	209531-03	Soil	09/30/22
4+	SW-N10-447	209531-04	Soil	09/30/22
5+	SW-N12-447	209531-05	Soil	09/30/22
6	SW-N14-447	209531-06	Soil	09/30/22
7	SW-N02-447DUP	209531-01DUP	Soil	09/29/22
8				
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12				
13				

Notes:

1	02 - 2339 MP				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 209531

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-N02-447	209531-01	Soil	09/29/22
SW-N04-447	209531-02	Soil	09/30/22
SW-N07-447	209531-03	Soil	09/30/22
SW-N10-447	209531-04	Soil	09/30/22
SW-N12-447	209531-05	Soil	09/30/22
SW-N14-447	209531-06	Soil	09/30/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 209531**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 209531**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 209531**

No Sample Data Qualified in this SDG

LDC #: 55997B8  
 SDG #: 209531  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: JG  
 2nd Reviewer: JG

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	UCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-N02-447	209531-01	Soil	09/29/22
2	SW-N04-447	209531-02	Soil	09/30/22
3	SW-N07-447	209531-03	Soil	09/30/22
4	SW-N10-447	209531-04	Soil	09/30/22
5	SW-N12-447	209531-05	Soil	09/30/22
6	SW-N14-447	209531-06	Soil	09/30/22
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Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210015

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
UST-100322	210015-01	Soil	10/03/22
SW-N02-442	210015-02	Soil	10/03/22
SW-N04-442	210015-03	Soil	10/03/22
SW-N07-442	210015-04	Soil	10/03/22
UST-100322MS	210015-01MS	Soil	10/03/22
UST-100322MSD	210015-01MSD	Soil	10/03/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

## IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

No field blanks were identified in this SDG.

## VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Analyte	Flag	A or P
SW-N07-442	Toluene-d8	120 (89-112)	All analytes	J (all detects)	P

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. For UST-100322MS/MSD, no data were qualified for toluene, ethylbenzene, m,p-Xylene, o-Xylene, and naphthalene percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration. Relative percent differences (RPD) were within QC limits.

**IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

**X. Field Duplicates**

No field duplicates were identified in this SDG.

**XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

**XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

**XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

**XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate %R, data were qualified as estimated in one sample.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210015**

<b>Sample</b>	<b>Analyte</b>	<b>Flag</b>	<b>A or P</b>	<b>Reason</b>
SW-N07-442	All analytes	J (all detects)	P	Surrogates (%R)

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	SW	
VIII.	Matrix spike/Matrix spike duplicates	SW	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1+	UST-100322	210015-01	Soil	10/03/22
2	SW-N02-442	210015-02	Soil	10/03/22
3	SW-N04-442	210015-03	Soil	10/03/22
4+	SW-N07-442	210015-04	Soil	10/03/22
5	UST-100322MS	210015-01MS	Soil	10/03/22
6	UST-100322MSD	210015-01MSD	Soil	10/03/22
7				
8				
9				
10				

Notes:

✓	02-2312 MB				





## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Polychlorinated Biphenyls  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210015

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
UST-100322	210015-01	Soil	10/03/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) by Environmental Protection Agency (EPA) SW 846 Method 8082A

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Polychlorinated Biphenyls - Data Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café  
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG  
210015**

No Sample Data Qualified in this SDG

**Aloha Café  
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG  
210015**

No Sample Data Qualified in this SDG

LDC #: 55997C3b

# VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/22

SDG #: 210015

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *AVL*

2nd Reviewer: *[Signature]*

**METHOD:** GC Polychlorinated Biphenyls (EPA SW-846 Method 8082A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	UCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	UST-100322	210015-01	Soil	10/03/22
2				
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13				

Notes:

+ 02-2393 MBV				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 16, 2023  
**Parameters:** Metals  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210015

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
UST-100322	210015-01	Soil	10/03/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019), the USEPA Region 2 *Standard Operating Procedure for the Evaluation of Metals for the Contract Laboratory Program*, SOP HW-2b, Revision 15 (December 2012), and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- X The numerical value of the result is accurate. However, the analyte was not positively identified at that value because the chromatographic pattern in the sample did not match that of the associated fuel standard. This qualifier is applicable only to TPH results.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met.

## **II. ICPMS Tune**

ICP-MS tune data were not reviewed for Stage 2A validation.

## **III. Instrument Calibration**

Instrument performance check data were not reviewed for Stage 2A validation.

## **IV. ICP Interference Check Sample Analysis**

Interference check sample (ICS) analysis data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Duplicate Sample Analysis**

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

## **IX. Serial Dilution**

Serial dilution was not performed for this SDG.

## **X. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### **XI. Field Duplicates**

No field duplicates were identified in this SDG.

### **XII. Internal Standards (ICP-MS)**

Internal standard data were not reviewed for Stage 2A validation.

### **XIII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Metals - Data Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café  
Metals - Laboratory Blank Data Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café  
Metals - Field Blank Data Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

LDC #: 55997C4a

VALIDATION COMPLETENESS WORKSHEET

Date: 2/7/23

SDG #: 210015

Stage 2BA

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JM

2nd Reviewer: [Signature]

METHOD: Metals (EPA SW-846 Method 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	ICP/MS Tune	N	
III.	Instrument Calibration	N	
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Laboratory Blanks	A	
VI.	Field Blanks	N	
VII.	Matrix Spike/Matrix Spike Duplicates	N	
VIII.	Duplicate sample analysis	N	
IX.	Serial Dilution	N	
X.	Laboratory control samples	A	LCS
XI.	Field Duplicates	N	
XII.	Internal Standard (ICP-MS)	N	
XIII.	Target Analyte Quantitation	N	
XIV.	Overall Assessment of Data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	UST-100322	210015-01	Soil	10/03/22
2				
3				
4				
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11				
12				
13				

Notes:



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210015

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
UST-100322	210015-01	Soil	10/03/22
SW-N02-442	210015-02	Soil	10/03/22
SW-N04-442	210015-03	Soil	10/03/22
SW-N07-442	210015-04	Soil	10/03/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

**I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

**II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

**III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

**IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

**V. Field Blanks**

No field blanks were identified in this SDG.

**VI. Surrogates**

Surrogates were added to all samples as required by the method with the following exceptions:

Sample	Finding	Affected Analyte	Flag	A or P
UST-100322	Laboratory indicated surrogate recovery fell outside of control limits due to sample matrix effects and flagged "ip".	TPH as gasoline	J (all detects)	P

**VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

**VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

### **IX. Field Duplicates**

No field duplicates were identified in this SDG.

### **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

### **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

### **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate, data were qualified as estimated in one sample.

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
 210015**

Sample	Analyte	Flag	A or P	Reason
UST-100322	TPH as gasoline	J (all detects)	P	Surrogates

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
 Summary - SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
 Summary - SDG 210015**

No Sample Data Qualified in this SDG

LDC #: 55997C7  
 SDG #: 210015  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1+	UST-100322	210015-01	Soil	10/03/22
2-	SW-N02-442	210015-02	Soil	10/03/22
3-	SW-N04-442	210015-03	Soil	10/03/22
4+	SW-N07-442	210015-04	Soil	10/03/22
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Notes:

-	02-2995 MB				



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210015

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
UST-100322	210015-01	Soil	10/03/22
SW-N02-442	210015-02	Soil	10/03/22
SW-N04-442	210015-03	Soil	10/03/22
SW-N07-442	210015-04	Soil	10/03/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210015**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210015**

No Sample Data Qualified in this SDG

LDC #: 55997C8  
 SDG #: 210015  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 07/22/22  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	UST-100322	210015-01	Soil	10/03/22
2	SW-N02-442	210015-02	Soil	10/03/22
3	SW-N04-442	210015-03	Soil	10/03/22
4	SW-N07-442	210015-04	Soil	10/03/22
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Notes:

-	02-2396 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210033

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-N10-442	210033-01	Soil	10/03/22
SW-N12-442	210033-02	Soil	10/03/22
SW-N14-442	210033-03	Soil	10/03/22
UST3-100422	210033-04	Water	10/04/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210033**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210033**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210033**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LOS 10
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-N10-442	210033-01	Soil	10/03/22
2	SW-N12-442	210033-02	Soil	10/03/22
3	SW-N14-442	210033-03	Soil	10/03/22
4	UST3-100422	210033-04	Water	10/03/22
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8				
9				
10				

Notes:

1	02-2478 MB				
2	02-2318				
3	02-2317				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Polychlorinated Biphenyls  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210033

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
UST3-100422	210033-04	Water	10/04/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) by Environmental Protection Agency (EPA) SW 846 Method 8082A

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Polychlorinated Biphenyls - Data Qualification Summary - SDG 210033**

No Sample Data Qualified in this SDG

**Aloha Café  
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG  
210033**

No Sample Data Qualified in this SDG

**Aloha Café  
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG  
210033**

No Sample Data Qualified in this SDG

LDC #: 55997D3b  
 SDG #: 210033  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 07/22/23  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC Polychlorinated Biphenyls (EPA SW-846 Method 8082A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS D
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	UST3-100422	210033-04	Water	10/03/22
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Notes:

1	02-2414 MB2				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210033

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-N10-442	210033-01	Soil	10/03/22
SW-N12-442	210033-02	Soil	10/03/22
SW-N14-442	210033-03	Soil	10/03/22
UST3-100422	210033-04	Water	10/04/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

**I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

**II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

**III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

**IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

**V. Field Blanks**

No field blanks were identified in this SDG.

**VI. Surrogates**

Surrogates were added to all samples as required by the method with the following exceptions:

Sample	Finding	Affected Analyte	Flag	A or P
SW-N12-442	Laboratory indicated surrogate recovery fell outside of control limits due to sample matrix effects and flagged "jp".	TPH as gasoline	J (all detects)	P

**VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

**VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

### **IX. Field Duplicates**

No field duplicates were identified in this SDG.

### **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

### **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

### **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate, data were qualified as estimated in one sample.

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
 210033**

Sample	Analyte	Flag	A or P	Reason
SW-N12-442	TPH as gasoline	J (all detects)	P	Surrogates

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
 Summary - SDG 210033**

No Sample Data Qualified in this SDG

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
 Summary - SDG 210033**

No Sample Data Qualified in this SDG

LDC #: 55997D7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210033

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: \_\_\_\_\_

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS 10
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-N10-442	210033-01	Soil	10/03/22
2	SW-N12-442	210033-02	Soil	10/03/22
3	SW-N14-442	210033-03	Soil	10/03/22
4	UST3-100422	210033-04	Water	10/03/22
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Notes:

1	02-2356 MB				
2	02-2347				
3	02-2340				



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210033

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-N10-442	210033-01	Soil	10/03/22
SW-N12-442	210033-02	Soil	10/03/22
SW-N14-442	210033-03	Soil	10/03/22
UST3-100422	210033-04	Water	10/04/22
SW-N10-442MS	210033-01MS	Soil	10/03/22
SW-N10-442MSD	210033-01MSD	Soil	10/03/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. Surrogate recoveries (%R) were not within QC limits for sample UST3-100422. No data were qualified for samples analyzed at greater than or equal to 5X dilution.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210033**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210033**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210033**

No Sample Data Qualified in this SDG

LDC #: 55997D8  
 SDG #: 210033  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/22/22  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	SW #4	NQ - dil
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	NCS D
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-N10-442	210033-01	Soil	10/03/22
2	SW-N12-442	210033-02	Soil	10/03/22
3	SW-N14-442	210033-03	Soil	10/03/22
4	UST3-100422	210033-04	Water	10/03/22
5	SW-N10-442MS	210033-01MS	Soil	10/03/22
6	SW-N10-442MSD	210033-01MSD	Soil	10/03/22
7				
8				
9				
10				
11				
12				
13				

Notes:

1	02-2418 MB2			
2	02-2501			
3	02-2401			

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210054

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W16-439	210054-01	Soil	10/05/22
SW-W13-439	210054-02	Soil	10/05/22
SW-W11-439	210054-03	Soil	10/05/22
SW-W08-439	210054-04	Soil	10/05/22
SW-W06-439	210054-05	Soil	10/05/22
SW-W03-439	210054-06	Soil	10/05/22
SW-W01-439	210054-07	Soil	10/05/22
SW-W16-439MS	210054-01MS	Soil	10/05/22
SW-W16-439MSD	210054-01MSD	Soil	10/05/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

**XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

**XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

**XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

**XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210054**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210054**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210054**

No Sample Data Qualified in this SDG

LDC #: 55997E1a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 210054

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 02/22/23

Page: 1 of 1

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W16-439	210054-01	Soil	10/05/22
2	SW-W13-439	210054-02	Soil	10/05/22
3	SW-W11-439	210054-03	Soil	10/05/22
4	SW-W08-439	210054-04	Soil	10/05/22
5	SW-W06-439	210054-05	Soil	10/05/22
6	SW-W03-439	210054-06	Soil	10/05/22
7	SW-W01-439	210054-07	Soil	10/05/22
8	SW-W16-439MS	210054-01MS	Soil	10/05/22
9	SW-W16-439MSD	210054-01MSD	Soil	10/05/22
10				

Notes:

02-2322 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210054

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W16-439	210054-01	Soil	10/05/22
SW-W13-439	210054-02	Soil	10/05/22
SW-W11-439	210054-03	Soil	10/05/22
SW-W08-439	210054-04	Soil	10/05/22
SW-W06-439	210054-05	Soil	10/05/22
SW-W03-439	210054-06	Soil	10/05/22
SW-W01-439	210054-07	Soil	10/05/22
SW-W16-439DUP	210054-01DUP	Soil	10/05/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210054**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210054**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210054**

No Sample Data Qualified in this SDG

LDC #: 55997E7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210054

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W16-439	210054-01	Soil	10/05/22
2	SW-W13-439	210054-02	Soil	10/05/22
3	SW-W11-439	210054-03	Soil	10/05/22
4	SW-W08-439	210054-04	Soil	10/05/22
5	SW-W06-439	210054-05	Soil	10/05/22
6	SW-W03-439	210054-06	Soil	10/05/22
7	SW-W01-439	210054-07	Soil	10/05/22
8	SW-W16-439DUP	210054-01DUP	Soil	10/05/22
9				
10				
11				
12				
13				

Notes:

<i>02-2347 MB</i>				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210054

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W16-439	210054-01	Soil	10/05/22
SW-W13-439	210054-02	Soil	10/05/22
SW-W11-439	210054-03	Soil	10/05/22
SW-W08-439	210054-04	Soil	10/05/22
SW-W06-439	210054-05	Soil	10/05/22
SW-W03-439	210054-06	Soil	10/05/22
SW-W01-439	210054-07	Soil	10/05/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210054**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210054**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210054**

No Sample Data Qualified in this SDG

LDC #: 55997E8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 07/22/23

SDG #: 210054

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-W16-439	210054-01	Soil	10/05/22
2	SW-W13-439	210054-02	Soil	10/05/22
3	SW-W11-439	210054-03	Soil	10/05/22
4	SW-W08-439	210054-04	Soil	10/05/22
5	SW-W06-439	210054-05	Soil	10/05/22
6	SW-W03-439	210054-06	Soil	10/05/22
7	SW-W01-439	210054-07	Soil	10/05/22
8				
9				
10				
11				
12				
13				

Notes:

<i>02-2417 MB</i>				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210102

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W03-434	210102-01	Soil	10/07/22
SW-W99-434	210102-02	Soil	10/07/22
SW-W05-434	210102-03	Soil	10/07/22
SW-W09-434	210102-04	Soil	10/07/22
SW-W11-434	210102-05	Soil	10/07/22
SW-W14-434	210102-06	Soil	10/07/22
SW-W16-434	210102-07	Soil	10/07/22
SW-W03-434MS	210102-01MS	Soil	10/07/22
SW-W03-434MSD	210102-01MSD	Soil	10/07/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

#### **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

#### **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

#### **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

#### **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210102**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210102**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210102**

No Sample Data Qualified in this SDG

LDC #: 55997F1a  
 SDG #: 210102  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: MB  
 2nd Reviewer: CF

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/ A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W03-434	210102-01	Soil	10/07/22
2	SW-W99-434	210102-02	Soil	10/07/22
3	SW-W05-434	210102-03	Soil	10/07/22
4	SW-W09-434	210102-04	Soil	10/07/22
5	SW-W11-434	210102-05	Soil	10/07/22
6	SW-W14-434	210102-06	Soil	10/07/22
7	SW-W16-434	210102-07	Soil	10/07/22
8	SW-W03-434MS	210102-01MS	Soil	10/07/22
9	SW-W03-434MSD	210102-01MSD	Soil	10/07/22
10				

Notes:

1	02-2325 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210102

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W03-434	210102-01	Soil	10/07/22
SW-W99-434	210102-02	Soil	10/07/22
SW-W05-434	210102-03	Soil	10/07/22
SW-W09-434	210102-04	Soil	10/07/22
SW-W11-434	210102-05	Soil	10/07/22
SW-W14-434	210102-06	Soil	10/07/22
SW-W16-434	210102-07	Soil	10/07/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210102**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210102**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210102**

No Sample Data Qualified in this SDG

LDC #: 55997F7  
 SDG #: 210102  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/27/23  
 Page: 1 of 1  
 Reviewer: *[Signature]*  
 2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-W03-434	210102-01	Soil	10/07/22
2	SW-W99-434	210102-02	Soil	10/07/22
3	SW-W05-434	210102-03	Soil	10/07/22
4	SW-W09-434	210102-04	Soil	10/07/22
5	SW-W11-434	210102-05	Soil	10/07/22
6	SW-W14-434	210102-06	Soil	10/07/22
7	SW-W16-434	210102-07	Soil	10/07/22
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Notes:

-	02-2357MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210102

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W03-434	210102-01	Soil	10/07/22
SW-W99-434	210102-02	Soil	10/07/22
SW-W05-434	210102-03	Soil	10/07/22
SW-W09-434	210102-04	Soil	10/07/22
SW-W11-434	210102-05	Soil	10/07/22
SW-W14-434	210102-06	Soil	10/07/22
SW-W16-434	210102-07	Soil	10/07/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210102**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210102**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210102**

No Sample Data Qualified in this SDG

LDC #: 55997F8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210102

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *JY*

2nd Reviewer: *JY*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS <i>fb</i>
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W03-434	210102-01	Soil	10/07/22
2	SW-W99-434	210102-02	Soil	10/07/22
3	SW-W05-434	210102-03	Soil	10/07/22
4	SW-W09-434	210102-04	Soil	10/07/22
5	SW-W11-434	210102-05	Soil	10/07/22
6	SW-W14-434	210102-06	Soil	10/07/22
7	SW-W16-434	210102-07	Soil	10/07/22
8				
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13				

Notes:

-	02-2445 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210145

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
Grab-101122	210145-01	Water	10/11/22
SW-S01-446	210145-02	Soil	10/11/22
SW-S03-446	210145-03	Soil	10/11/22
SW-S06-446	210145-04	Soil	10/11/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210145**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210145**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210145**

No Sample Data Qualified in this SDG

LDC #: 55997G1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210145

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS FB
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	Grab-101122	210145-01	Water	10/11/22
2	SW-S01-446	210145-02	Soil	10/11/22
3	SW-S03-446	210145-03	Soil	10/11/22
4	SW-S06-446	210145-04	Soil	10/11/22
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Notes:

<i>[Handwritten]</i> 02-2330 MB2				
<i>[Handwritten]</i> 02-2329				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210145

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
Grab-101122	210145-01	Water	10/11/22
SW-S01-446	210145-02	Soil	10/11/22
SW-S03-446	210145-03	Soil	10/11/22
SW-S06-446	210145-04	Soil	10/11/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210145**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210145**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210145**

No Sample Data Qualified in this SDG

LDC #: 55997G7

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 210145

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS B
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	Grab-101122	210145-01	Water	10/11/22
2	SW-S01-446	210145-02	Soil	10/11/22
3	SW-S03-446	210145-03	Soil	10/11/22
4	SW-S06-446	210145-04	Soil	10/11/22
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12				
13				

Notes:

-	02-2750 MB				
-	02-2504				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210145

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
Grab-101122	210145-01	Water	10/11/22
SW-S01-446	210145-02	Soil	10/11/22
SW-S03-446	210145-03	Soil	10/11/22
SW-S06-446	210145-04	Soil	10/11/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210145**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210145**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210145**

No Sample Data Qualified in this SDG

LDC #: 55997G8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/22

SDG #: 210145

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS/D
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	Grab-101122	210145-01	Water	10/11/22
2	SW-S01-446	210145-02	Soil	10/11/22
3	SW-S03-446	210145-03	Soil	10/11/22
4	SW-S06-446	210145-04	Soil	10/11/22
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11				
12				
13				

Notes:

1	02-2466 MB				
2	02-2521 ↓				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210214

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
B-N04-W09-428	210214-01	Soil	10/14/22
B-N99-W99-428	210214-02	Soil	10/14/22
B-N04-W09-428MS	210214-01MS	Soil	10/14/22
B-N04-W09-428MSD	210214-01MSD	Soil	10/14/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples B-N04-W09-428 and B-N99-W99-428 were identified as field duplicates. No results were detected in any of the samples.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210214**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210214**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210214**

No Sample Data Qualified in this SDG

LDC #: 55997H1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210214

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	ND	D = 1/2
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N04-W09-428	210214-01	Soil	10/14/22
2	B-N99-W99-428	210214-02	Soil	10/14/22
3	B-N04-W09-428MS	210214-01MS	Soil	10/14/22
4	B-N04-W09-428MSD	210214-01MSD	Soil	10/14/22
5				
6				
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10				

Notes:

-	02-2483 MPB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210214

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
B-N04-W09-428	210214-01	Soil	10/14/22
B-N99-W99-428	210214-02	Soil	10/14/22
B-N04-W09-428DUP	210214-01DUP	Soil	10/14/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples B-N04-W09-428 and B-N99-W99-428 were identified as field duplicates. No results were detected in any of the samples.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210214**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210214**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210214**

No Sample Data Qualified in this SDG

LDC #: 55997H7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210214

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JG

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 1/2
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N04-W09-428 D	210214-01	Soil	10/14/22
2	B-N99-W99-428 D	210214-02	Soil	10/14/22
3	B-N04-W09-428DUP	210214-01DUP	Soil	10/14/22
4				
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Notes:

- 02-2510 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210214

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
B-N04-W09-428	210214-01	Soil	10/14/22
B-N99-W99-428	210214-02	Soil	10/14/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples B-N04-W09-428 and B-N99-W99-428 were identified as field duplicates. No results were detected in any of the samples.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210214**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210214**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210214**

No Sample Data Qualified in this SDG

LDC #: 55997H8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210214

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *ML*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	ND	D = 1/2
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N04-W09-428	210214-01	Soil	10/14/22
2	B-N99-W99-428	210214-02	Soil	10/14/22
3				
4				
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11				
12				
13				

Notes:

-	02-2532 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210237

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-N02-437	210237-01	Soil	10/17/22
SW-N04-437	210237-02	Soil	10/17/22
SW-N07-437	210237-03	Soil	10/17/22
SW-N10-437	210237-04	Soil	10/17/22
SW-N12-437	210237-05	Soil	10/17/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

#### **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

#### **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

#### **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

#### **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210237**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210237**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210237**

No Sample Data Qualified in this SDG

LDC #: 5599711a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 07/22/23

SDG #: 210237

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-N02-437	210237-01	Soil	10/17/22
2	SW-N04-437	210237-02	Soil	10/17/22
3	SW-N07-437	210237-03	Soil	10/17/22
4	SW-N10-437	210237-04	Soil	10/17/22
5	SW-N12-437	210237-05	Soil	10/17/22
6				
7				
8				
9				
10				

Notes:

1	02-2982 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210237

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-N02-437	210237-01	Soil	10/17/22
SW-N04-437	210237-02	Soil	10/17/22
SW-N07-437	210237-03	Soil	10/17/22
SW-N10-437	210237-04	Soil	10/17/22
SW-N12-437	210237-05	Soil	10/17/22
SW-N02-437DUP	210237-01DUP	Soil	10/17/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210237**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210237**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210237**

No Sample Data Qualified in this SDG

LDC #: 5599717

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 210237

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	LD N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-N02-437	210237-01	Soil	10/17/22
2	SW-N04-437	210237-02	Soil	10/17/22
3	SW-N07-437	210237-03	Soil	10/17/22
4	SW-N10-437	210237-04	Soil	10/17/22
5	SW-N12-437	210237-05	Soil	10/17/22
6	SW-N02-437DUP	210237-01DUP	Soil	10/17/22
7				
8				
9				
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13				

Notes:

1	02-2513 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210237

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-N02-437	210237-01	Soil	10/17/22
SW-N04-437	210237-02	Soil	10/17/22
SW-N07-437	210237-03	Soil	10/17/22
SW-N10-437	210237-04	Soil	10/17/22
SW-N12-437	210237-05	Soil	10/17/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210237**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210237**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210237**

No Sample Data Qualified in this SDG

LDC #: 5599718

# VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 210237

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-N02-437	210237-01	Soil	10/17/22
2	SW-N04-437	210237-02	Soil	10/17/22
3	SW-N07-437	210237-03	Soil	10/17/22
4	SW-N10-437	210237-04	Soil	10/17/22
5	SW-N12-437	210237-05	Soil	10/17/22
6				
7				
8				
9				
10				
11				
12				
13				

Notes:

-	02-2532 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210253

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W06-429	210253-01	Soil	10/18/22
SW-W09-429	210253-02	Soil	10/18/22
SW-W11-429	210253-03	Soil	10/18/22
SW-W14-429	210253-04	Soil	10/18/22
Trip Blank	210253-05	Water	10/18/22
SW-W06-429MS	210253-01MS	Soil	10/18/22
SW-W06-429MSD	210253-01MSD	Soil	10/18/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210253**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210253**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210253**

No Sample Data Qualified in this SDG

LDC #: 55997J1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210253

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *JL*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 4
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W06-429	210253-01	Soil	10/18/22
2	SW-W09-429	210253-02	Soil	10/18/22
3	SW-W11-429	210253-03	Soil	10/18/22
4	SW-W14-429	210253-04	Soil	10/18/22
5	Trip Blank	210253-05	Water	10/18/22
6	SW-W06-429MS	210253-01MS	Soil	10/18/22
7	SW-W06-429MSD	210253-01MSD	Soil	10/18/22
8				
9				
10				

Notes:

-1	02-2487 MB				
-2	02-2488				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210253

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W06-429	210253-01	Soil	10/18/22
SW-W09-429	210253-02	Soil	10/18/22
SW-W11-429	210253-03	Soil	10/18/22
SW-W14-429	210253-04	Soil	10/18/22
Trip Blank	210253-05	Water	10/18/22
SW-W11-429DUP	210253-03DUP	Soil	10/18/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210253**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210253**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210253**

No Sample Data Qualified in this SDG

LDC #: 55997J7

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 210253

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 02/22/23

Page: 1 of 1

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB = 5
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W06-429	210253-01	Soil	10/18/22
2	SW-W09-429	210253-02	Soil	10/18/22
3	SW-W11-429	210253-03	Soil	10/18/22
4	SW-W14-429	210253-04	Soil	10/18/22
5	Trip Blank	210253-05	Water	10/18/22
6	SW-W11-429DUP	210253-03DUP	Soil	10/18/22
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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210253

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W06-429	210253-01	Soil	10/18/22
SW-W09-429	210253-02	Soil	10/18/22
SW-W11-429	210253-03	Soil	10/18/22
SW-W14-429	210253-04	Soil	10/18/22
SW-W06-429MS	210253-01MS	Soil	10/18/22
SW-W06-429MSD	210253-01MSD	Soil	10/18/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210253**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210253**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210253**

No Sample Data Qualified in this SDG

LDC #: 55997J8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210253

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W06-429	210253-01	Soil	10/18/22
2	SW-W09-429	210253-02	Soil	10/18/22
3	SW-W11-429	210253-03	Soil	10/18/22
4	SW-W14-429	210253-04	Soil	10/18/22
5	1 MS	↓ -01 MS	↓	↓
6	1 MSD	↓ -01 MSD	↓	↓
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Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210272

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W04-429	210272-01	Soil	10/19/22
SW-N03-429	210272-02	Soil	10/19/22
SW-N05-429	210272-03	Soil	10/19/22
SW-N08-429	210272-04	Soil	10/19/22
SW-N10-429	210272-05	Soil	10/19/22
Trip Blank	210272-06	Water	10/19/22
SW-W04-429MS	210272-01MS	Soil	10/19/22
SW-W04-429MSD	210272-01MSD	Soil	10/19/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210272**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210272**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210272**

No Sample Data Qualified in this SDG

LDC #: 55997K1a  
 SDG #: 210272  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 6
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LES
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet  
 ND = No compounds detected  
 R = Rinsate  
 FB = Field blank  
 D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank  
 SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W04-429	210272-01	Soil	10/19/22
2	SW-N03-429	210272-02	Soil	10/19/22
3	SW-N05-429	210272-03	Soil	10/19/22
4	SW-N08-429	210272-04	Soil	10/19/22
5	SW-N10-429	210272-05	Soil	10/19/22
6	Trip Blank	210272-06	Water	10/19/22
7	SW-W04-429MS	210272-01MS	Soil	10/19/22
8	SW-W04-429MSD	210272-01MSD	Soil	10/19/22
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Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210272

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W04-429	210272-01	Soil	10/19/22
SW-N03-429	210272-02	Soil	10/19/22
SW-N05-429	210272-03	Soil	10/19/22
SW-N08-429	210272-04	Soil	10/19/22
SW-N10-429	210272-05	Soil	10/19/22
Trip Blank	210272-06	Water	10/19/22
SW-W04-429DUP	210272-01DUP	Soil	10/19/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210272**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210272**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210272**

No Sample Data Qualified in this SDG

LDC #: 55997K7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/20/23

SDG #: 210272

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB = 6
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	/LD N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W04-429	210272-01	Soil	10/19/22
2	SW-N03-429	210272-02	Soil	10/19/22
3	SW-N05-429	210272-03	Soil	10/19/22
4	SW-N08-429	210272-04	Soil	10/19/22
5	SW-N10-429	210272-05	Soil	10/19/22
6	Trip Blank	210272-06	Water	10/19/22
7	SW-W04-429DUP	210272-01DUP	Soil	10/19/22
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Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210272

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W04-429	210272-01	Soil	10/19/22
SW-N03-429	210272-02	Soil	10/19/22
SW-N05-429	210272-03	Soil	10/19/22
SW-N08-429	210272-04	Soil	10/19/22
SW-N10-429	210272-05	Soil	10/19/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210272**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210272**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210272**

No Sample Data Qualified in this SDG

LDC #: 55997K8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210272

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W04-429	210272-01	Soil	10/19/22
2	SW-N03-429	210272-02	Soil	10/19/22
3	SW-N05-429	210272-03	Soil	10/19/22
4	SW-N08-429	210272-04	Soil	10/19/22
5	SW-N10-429	210272-05	Soil	10/19/22
6				
7				
8				
9				
10				
11				
12				
13				

Notes:

-	02-2547 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210320

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N04-W04-427	210320-01	Soil	10/21/22
B-N04-W06-427	210320-02	Soil	10/21/22
B-N04-W11-427	210320-03	Soil	10/21/22
B-N04-W14-429	210320-04	Soil	10/21/22
B-N04-W16-429	210320-05	Soil	10/21/22
B-N07-W16-429	210320-06	Soil	10/21/22
B-N99-W99-429	210320-07	Soil	10/21/22
B-N10-W16-429	210320-08	Soil	10/21/22
B-N07-W14-429	210320-09	Soil	10/21/22
SW-W09-425	210320-10	Soil	10/21/22
SW-W05-425	210320-11	Soil	10/21/22
SW-W06-425	210320-12	Soil	10/21/22
SW-W12-425	210320-13	Soil	10/21/22
SW-W14-425	210320-14	Soil	10/21/22
Trip Blank 102122	210320-15	Water	10/21/22
B-N04-W04-427MS	210320-01MS	Soil	10/21/22
B-N04-W04-427MSD	210320-01MSD	Soil	10/21/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

**I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

**II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

**III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

**IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

**V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

**VI. Field Blanks**

Sample Trip Blank 102122 was identified as a trip blank. No contaminants were found.

**VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

**VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

**IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

**X. Field Duplicates**

Samples B-N99-W99-429 and B-N10-W16-429 were identified as field duplicates. No results were detected in any of the samples.

#### **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

#### **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

#### **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

#### **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210320**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210320**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210320**

No Sample Data Qualified in this SDG

LDC #: 55997L1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210320

Stage 2A

Page: 1 of 2

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 15
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS/D
X.	Field duplicates	ND	D = 7/8
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N04-W04-427	210320-01	Soil	10/21/22
2	B-N04-W06-427	210320-02	Soil	10/21/22
3	B-N04-W11-427	210320-03	Soil	10/21/22
4	B-N04-W14-429	210320-04	Soil	10/21/22
5	B-N04-W16-429	210320-05	Soil	10/21/22
6	B-N07-W16-429	210320-06	Soil	10/21/22
7	B-N99-W99-429	210320-07	Soil	10/21/22
8	B-N10-W16-429	210320-08	Soil	10/21/22
9	B-N07-W14-429	210320-09	Soil	10/21/22
10	SW-W09-425	210320-10	Soil	10/21/22
11	SW-W05-425	210320-11	Soil	10/21/22
12	SW-W06-425	210320-12	Soil	10/21/22
13	SW-W12-425	210320-13	Soil	10/21/22
14	SW-W14-425	210320-14	Soil	10/21/22
15	Trip Blank 102122	210320-15	Water	10/21/22

LDC #: 55997L1a

# VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 210320

Stage 2A

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: 

2nd Reviewer: 

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

	Client ID	Lab ID	Matrix	Date
16	B-N04-W04-427MS	210320-01MS	Soil	10/21/22
17	B-N04-W04-427MSD	210320-01MSD	Soil	10/21/22
18				
19				
20				

Notes:

1	02-2493 MB				
2	02-2494 ↓				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210320

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N04-W04-427	210320-01	Soil	10/21/22
B-N04-W06-427	210320-02	Soil	10/21/22
B-N04-W11-427	210320-03	Soil	10/21/22
B-N04-W14-429	210320-04	Soil	10/21/22
B-N04-W16-429	210320-05	Soil	10/21/22
B-N07-W16-429	210320-06	Soil	10/21/22
B-N99-W99-429	210320-07	Soil	10/21/22
B-N10-W16-429	210320-08	Soil	10/21/22
B-N07-W14-429	210320-09	Soil	10/21/22
SW-W09-425	210320-10	Soil	10/21/22
SW-W05-425	210320-11	Soil	10/21/22
SW-W06-425	210320-12	Soil	10/21/22
SW-W12-425	210320-13	Soil	10/21/22
SW-W14-425	210320-14	Soil	10/21/22
Trip Blank 102122	210320-15	Water	10/21/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank 102122 was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples B-N99-W99-429 and B-N10-W16-429 were identified as field duplicates. No results were detected in any of the samples.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210320**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210320**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210320**

No Sample Data Qualified in this SDG

LDC #: 55997L7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210320

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *NG*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB = 15
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	UCS
IX.	Field duplicates	ND	D = 7/8
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N04-W04-427	210320-01	Soil	10/21/22
2	B-N04-W06-427	210320-02	Soil	10/21/22
3	B-N04-W11-427	210320-03	Soil	10/21/22
4	B-N04-W14-429	210320-04	Soil	10/21/22
5	B-N04-W16-429	210320-05	Soil	10/21/22
6	B-N07-W16-429	210320-06	Soil	10/21/22
7	B-N99-W99-429	210320-07	Soil	10/21/22
8	B-N10-W16-429	210320-08	Soil	10/21/22
9	B-N07-W14-429	210320-09	Soil	10/21/22
10	SW-W09-425	210320-10	Soil	10/21/22
11	SW-W05-425	210320-11	Soil	10/21/22
12	SW-W06-425	210320-12	Soil	10/21/22
13	SW-W12-425	210320-13	Soil	10/21/22
14	SW-W14-425	210320-14	Soil	10/21/22
15	Trip Blank 102122	210320-15	Water	10/21/22
16				
17	02-2567MB			

- 2 02-2518 (All ND)

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210320

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N04-W04-427	210320-01	Soil	10/21/22
B-N04-W06-427	210320-02	Soil	10/21/22
B-N04-W11-427	210320-03	Soil	10/21/22
B-N04-W14-429	210320-04	Soil	10/21/22
B-N04-W16-429	210320-05	Soil	10/21/22
B-N07-W16-429	210320-06	Soil	10/21/22
B-N99-W99-429	210320-07	Soil	10/21/22
B-N10-W16-429	210320-08	Soil	10/21/22
B-N07-W14-429	210320-09	Soil	10/21/22
SW-W09-425	210320-10	Soil	10/21/22
SW-W05-425	210320-11	Soil	10/21/22
SW-W06-425	210320-12	Soil	10/21/22
SW-W12-425	210320-13	Soil	10/21/22
SW-W14-425	210320-14	Soil	10/21/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

Samples B-N99-W99-429 and B-N10-W16-429 were identified as field duplicates. No results were detected in any of the samples.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210320**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210320**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210320**

No Sample Data Qualified in this SDG

LDC #: 55997L8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210320

Stage 2A

Page: 1 of 1

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Reviewer: *DF*2nd Reviewer: *DF***METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	
IX.	Field duplicates	N	D = 7/8
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N04-W04-427	210320-01	Soil	10/21/22
2	B-N04-W06-427	210320-02	Soil	10/21/22
3	B-N04-W11-427	210320-03	Soil	10/21/22
4	B-N04-W14-429	210320-04	Soil	10/21/22
5	B-N04-W16-429	210320-05	Soil	10/21/22
6	B-N07-W16-429	210320-06	Soil	10/21/22
7	B-N99-W99-429	210320-07	Soil	10/21/22
8	B-N10-W16-429	210320-08	Soil	10/21/22
9	B-N07-W14-429	210320-09	Soil	10/21/22
10	SW-W09-425	210320-10	Soil	10/21/22
11	SW-W05-425	210320-11	Soil	10/21/22
12	SW-W06-425	210320-12	Soil	10/21/22
13	SW-W12-425	210320-13	Soil	10/21/22
14	SW-W14-425	210320-14	Soil	10/21/22
15				
16				
17	02-2593 MB			

(All ND)

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210372

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W06-421	210372-01	Soil	10/25/22
SW-W08-421	210372-02	Soil	10/25/22
SW-W11-421	210372-03	Soil	10/25/22
SW-W06-421MS	210372-01MS	Soil	10/25/22
SW-W06-421MSD	210372-01MSD	Soil	10/25/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

**XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

**XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

**XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

**XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210372**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210372**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210372**

No Sample Data Qualified in this SDG

LDC #: 55997M1a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 210372

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 02/22/23

Page: 1 of 1

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W06-421	210372-01	Soil	10/25/22
2	SW-W08-421	210372-02	Soil	10/25/22
3	SW-W11-421	210372-03	Soil	10/25/22
4	SW-W06-421MS	210372-01MS	Soil	10/25/22
5	SW-W06-421MSD	210372-01MSD	Soil	10/25/22
6				
7				
8				
9				
10				

Notes:

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**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210372

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W06-421	210372-01	Soil	10/25/22
SW-W08-421	210372-02	Soil	10/25/22
SW-W11-421	210372-03	Soil	10/25/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210372**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210372**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210372**

No Sample Data Qualified in this SDG

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS ID
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-W06-421	210372-01	Soil	10/25/22
2	SW-W08-421	210372-02	Soil	10/25/22
3	SW-W11-421	210372-03	Soil	10/25/22
4				
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13				

Notes:

02-25 67 MB					

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210372

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W06-421	210372-01	Soil	10/25/22
SW-W08-421	210372-02	Soil	10/25/22
SW-W11-421	210372-03	Soil	10/25/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210372**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210372**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210372**

No Sample Data Qualified in this SDG

LDC #: 55997M8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210372

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*  
2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W06-421	210372-01	Soil	10/25/22
2	SW-W08-421	210372-02	Soil	10/25/22
3	SW-W11-421	210372-03	Soil	10/25/22
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Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N02-W02-438	210402-01	Soil	10/26/22
B-N02-W04-424	210402-02	Soil	10/26/22
B-N02-W06-423	210402-03	Soil	10/26/22
B-N02-W09-424	210402-04	Soil	10/26/22
B-N02-W12-425	210402-05	Soil	10/26/22
B-N02-W14-429	210402-06	Soil	10/26/22
B-N02-W16-434	210402-07	Soil	10/26/22
B-N04-W02-437	210402-08	Soil	10/26/22
B-N07-W02-438	210402-09	Soil	10/26/22
B-N07-W04-431	210402-10	Soil	10/26/22
B-N07-W06-430	210402-11	Soil	10/26/22
B-N07-W09-426	210402-12	Soil	10/26/22
B-N07-W12-426	210402-13	Soil	10/26/22
B-N10-W02-438	210402-14	Soil	10/26/22
B-N10-W04-431	210402-15	Soil	10/26/22
B-N10-W06-431	210402-16	Soil	10/26/22
B-N10-W12-429	210402-17	Soil	10/26/22
B-N10-W14-429	210402-18	Soil	10/26/22
B-N12-W02-444	210402-19	Soil	10/26/22
B-N12-W12-439	210402-20	Soil	10/26/22
B-N12-W14-439	210402-21	Soil	10/26/22
B-N12-W16-439	210402-22	Soil	10/26/22
Trip Blank-102622	210402-23	Water	10/26/22
B-N12-W12-439MS	210402-20MS	Soil	10/26/22
B-N12-W12-439MSD	210402-20MSD	Soil	10/26/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

**I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

**II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

**III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

**IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

**V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

**VI. Field Blanks**

Sample Trip Blank-102622 was identified as a trip blank. No contaminants were found.

**VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

**VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

Relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	RPD (Limits)	Flag	A or P
B-N12-W12-439MS/MSD (B-N12-W12-439)	Naphthalene	36 (≤20)	J (all detects)	A

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS/MSD RPD, data were qualified as estimated in one sample.

**Aloha Café  
Volatiles - Data Qualification Summary - SDG 210402**

Sample	Analyte	Flag	A or P	Reason
B-N12-W12-439	Naphthalene	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD)

**Aloha Café  
Volatiles - Laboratory Blank Data Qualification Summary - SDG 210402**

No Sample Data Qualified in this SDG

**Aloha Café  
Volatiles - Field Blank Data Qualification Summary - SDG 210402**

No Sample Data Qualified in this SDG

LDC #: 55997N1a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 210402

Stage 2A

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Date: 07/27/22

Page: 1 of 2

Reviewer: YJ2nd Reviewer: YJ**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	TB = 23
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	SW	
IX.	Laboratory control samples	A	LCS 10
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N02-W02-438	210402-01	Soil	10/26/22
2	B-N02-W04-424	210402-02	Soil	10/26/22
3	B-N02-W06-423	210402-03	Soil	10/26/22
4	B-N02-W09-424	210402-04	Soil	10/26/22
5	B-N02-W12-425	210402-05	Soil	10/26/22
6	B-N02-W14-429	210402-06	Soil	10/26/22
7	B-N02-W16-434	210402-07	Soil	10/26/22
8	B-N04-W02-437	210402-08	Soil	10/26/22
9	B-N07-W02-438	210402-09	Soil	10/26/22
10	B-N07-W04-431	210402-10	Soil	10/26/22
11	B-N07-W06-430	210402-11	Soil	10/26/22
12	B-N07-W09-426	210402-12	Soil	10/26/22
13	B-N07-W12-426	210402-13	Soil	10/26/22
14	B-N10-W02-438	210402-14	Soil	10/26/22
15	B-N10-W04-431	210402-15	Soil	10/26/22

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

	Client ID	Lab ID	Matrix	Date
16	B-N10-W06-431	210402-16	Soil	10/26/22
17	B-N10-W12-429	210402-17	Soil	10/26/22
18	B-N10-W14-429	210402-18	Soil	10/26/22
19	B-N12-W02-444	210402-19	Soil	10/26/22
20	B-N12-W12-439	210402-20	Soil	10/26/22
21	B-N12-W14-439	210402-21	Soil	10/26/22
22	B-N12-W16-439	210402-22	Soil	10/26/22
23	Trip Blank-102622	210402-23	Water	10/26/22
24	B-N12-W12-439MS	210402-20MS	Soil	10/26/22
25	B-N12-W12-439MSD	210402-20MSD	Soil	10/26/22
26				
27				
28				

Notes:

1	02-2612 mpb				
2	02-2613 ↓				
3	02-2611 ↓				

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2. Octane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. p-Diethylbenzene	Z2.



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N02-W02-438	210402-01	Soil	10/26/22
B-N02-W04-424	210402-02	Soil	10/26/22
B-N02-W06-423	210402-03	Soil	10/26/22
B-N02-W09-424	210402-04	Soil	10/26/22
B-N02-W12-425	210402-05	Soil	10/26/22
B-N02-W14-429	210402-06	Soil	10/26/22
B-N02-W16-434	210402-07	Soil	10/26/22
B-N04-W02-437	210402-08	Soil	10/26/22
B-N07-W02-438	210402-09	Soil	10/26/22
B-N07-W04-431	210402-10	Soil	10/26/22
B-N07-W06-430	210402-11	Soil	10/26/22
B-N07-W09-426	210402-12	Soil	10/26/22
B-N07-W12-426	210402-13	Soil	10/26/22
B-N10-W02-438	210402-14	Soil	10/26/22
B-N10-W04-431	210402-15	Soil	10/26/22
B-N10-W06-431	210402-16	Soil	10/26/22
B-N10-W12-429	210402-17	Soil	10/26/22
B-N10-W14-429	210402-18	Soil	10/26/22
B-N12-W02-444	210402-19	Soil	10/26/22
B-N12-W12-439	210402-20	Soil	10/26/22
B-N12-W14-439	210402-21	Soil	10/26/22
B-N12-W16-439	210402-22	Soil	10/26/22
Trip Blank-102622	210402-23	Water	10/26/22
B-N10-W04-431DUP	210402-15DUP	Soil	10/26/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

Sample Trip Blank-102622 was identified as a trip blank. No contaminants were found.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210402**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210402**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210402**

No Sample Data Qualified in this SDG

LDC #: 55997N7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 210402

Stage 2A

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Reviewer: JP2nd Reviewer: J**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	ND	TB = 23
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N02-W02-438	210402-01	Soil	10/26/22
2	B-N02-W04-424	210402-02	Soil	10/26/22
3	B-N02-W06-423	210402-03	Soil	10/26/22
4	B-N02-W09-424	210402-04	Soil	10/26/22
5	B-N02-W12-425	210402-05	Soil	10/26/22
6	B-N02-W14-429	210402-06	Soil	10/26/22
7	B-N02-W16-434	210402-07	Soil	10/26/22
8	B-N04-W02-437	210402-08	Soil	10/26/22
9	B-N07-W02-438	210402-09	Soil	10/26/22
10	B-N07-W04-431	210402-10	Soil	10/26/22
11	B-N07-W06-430	210402-11	Soil	10/26/22
12	B-N07-W09-426	210402-12	Soil	10/26/22
13	B-N07-W12-426	210402-13	Soil	10/26/22
14	B-N10-W02-438	210402-14	Soil	10/26/22
15	B-N10-W04-431	210402-15	Soil	10/26/22
16	B-N10-W06-431	210402-16	Soil	10/26/22
17	B-N10-W12-429	210402-17	Soil	10/26/22

LDC #: 55997N7

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/27/23

SDG #: 210402

Stage 2A

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JV

2nd Reviewer: \_\_\_\_\_

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

	Client ID	Lab ID	Matrix	Date
18	B-N10-W14-429	210402-18	Soil	10/26/22
19	B-N12-W02-444	210402-19	Soil	10/26/22
20	B-N12-W12-439	210402-20	Soil	10/26/22
21	B-N12-W14-439	210402-21	Soil	10/26/22
22	B-N12-W16-439	210402-22	Soil	10/26/22
23	Trip Blank-102622	210402-23	Water	10/26/22
24	B-N10-W04-431DUP	210402-15DUP	Soil	10/26/22
25				
26				
27				

Notes:

1	02-2571 MB				
2	02-2568				
3	02-2572 ✓				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210402

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N02-W02-438	210402-01	Soil	10/26/22
B-N02-W04-424	210402-02	Soil	10/26/22
B-N02-W06-423	210402-03	Soil	10/26/22
B-N02-W09-424	210402-04	Soil	10/26/22
B-N02-W12-425	210402-05	Soil	10/26/22
B-N02-W14-429	210402-06	Soil	10/26/22
B-N02-W16-434	210402-07	Soil	10/26/22
B-N04-W02-437	210402-08	Soil	10/26/22
B-N07-W02-438	210402-09	Soil	10/26/22
B-N07-W04-431	210402-10	Soil	10/26/22
B-N07-W06-430	210402-11	Soil	10/26/22
B-N07-W09-426	210402-12	Soil	10/26/22
B-N07-W12-426	210402-13	Soil	10/26/22
B-N10-W02-438	210402-14	Soil	10/26/22
B-N10-W04-431	210402-15	Soil	10/26/22
B-N10-W06-431	210402-16	Soil	10/26/22
B-N10-W12-429	210402-17	Soil	10/26/22
B-N10-W14-429	210402-18	Soil	10/26/22
B-N12-W02-444	210402-19	Soil	10/26/22
B-N12-W12-439	210402-20	Soil	10/26/22
B-N12-W14-439	210402-21	Soil	10/26/22
B-N12-W16-439	210402-22	Soil	10/26/22
B-N02-W02-438MS	210402-01MS	Soil	10/26/22
B-N02-W02-438MSD	210402-01MSD	Soil	10/26/22
B-N12-W14-439MS	210402-21MS	Soil	10/26/22
B-N12-W14-439MSD	210402-21MSD	Soil	10/26/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210402**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210402**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210402**

No Sample Data Qualified in this SDG

LDC #: 55997N8

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 210402

Stage 2A

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Date: 02/27/23

Page: 1 of 2

Reviewer: 

2nd Reviewer: \_\_\_\_\_

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N02-W02-438	210402-01	Soil	10/26/22
2	B-N02-W04-424	210402-02	Soil	10/26/22
3	B-N02-W06-423	210402-03	Soil	10/26/22
4	B-N02-W09-424	210402-04	Soil	10/26/22
5	B-N02-W12-425	210402-05	Soil	10/26/22
6	B-N02-W14-429	210402-06	Soil	10/26/22
7	B-N02-W16-434	210402-07	Soil	10/26/22
8	B-N04-W02-437	210402-08	Soil	10/26/22
9	B-N07-W02-438	210402-09	Soil	10/26/22
10	B-N07-W04-431	210402-10	Soil	10/26/22
11	B-N07-W06-430	210402-11	Soil	10/26/22
12	B-N07-W09-426	210402-12	Soil	10/26/22
13	B-N07-W12-426	210402-13	Soil	10/26/22
14	B-N10-W02-438	210402-14	Soil	10/26/22
15	B-N10-W04-431	210402-15	Soil	10/26/22
16	B-N10-W06-431	210402-16	Soil	10/26/22
17	B-N10-W12-429	210402-17	Soil	10/26/22

LDC #: 55997N8

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 210402

Stage 2A

Page: 2 of 2

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

	Client ID	Lab ID	Matrix	Date
18	B-N10-W14-429	210402-18	Soil	10/26/22
19	B-N12-W02-444	210402-19	Soil	10/26/22
20	B-N12-W12-439	210402-20	Soil	10/26/22
21	B-N12-W14-439	210402-21	Soil	10/26/22
22	B-N12-W16-439	210402-22	Soil	10/26/22
23	B-N02-W02-438MS	210402-01MS	Soil	10/26/22
24	B-N02-W02-438MSD	210402-01MSD	Soil	10/26/22
25	B-N12-W14-439MS	210402-21MS	Soil	10/26/22
26	B-N12-W14-439MSD	210402-21MSD	Soil	10/26/22
27				
28				
29				

Notes:

1	02-2658 MB						
2	02-2659						

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 210437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N14-W16-449	210437-01	Soil	10/27/22
B-N14-W14-449	210437-02	Soil	10/27/22
B-N12-W04-438	210437-03	Soil	10/27/22
B-N14-W06-449	210437-04	Soil	10/27/22
B-N14-W12-449	210437-05	Soil	10/27/22
B-N12-W06-438	210437-06	Soil	10/27/22
B-N12-W10-438	210437-07	Soil	10/27/22
B-N14-W10-449	210437-08	Soil	10/27/22
B-N10-W09-430	210437-09	Soil	10/27/22
B-N14-W16-449MS	210437-01MS	Soil	10/27/22
B-N14-W16-449MSD	210437-01MSD	Soil	10/27/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 210437**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 210437**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 210437**

No Sample Data Qualified in this SDG

LDC #: 5599701a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 6/22/23

SDG #: 210437

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N14-W16-449	210437-01	Soil	10/27/22
2	B-N14-W14-449	210437-02	Soil	10/27/22
3	B-N12-W04-438	210437-03	Soil	10/27/22
4	B-N14-W06-449	210437-04	Soil	10/27/22
5	B-N14-W12-449	210437-05	Soil	10/27/22
6	B-N12-W06-438	210437-06	Soil	10/27/22
7	B-N12-W10-438	210437-07	Soil	10/27/22
8	B-N14-W10-449	210437-08	Soil	10/27/22
9	B-N10-W09-430	210437-09	Soil	10/27/22
10	B-N14-W16-449MS	210437-01MS	Soil	10/27/22
11	B-N14-W16-449MSD	210437-01MSD	Soil	10/27/22
12				

Notes:

-	002-2614 MP				
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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N14-W16-449	210437-01	Soil	10/27/22
B-N14-W14-449	210437-02	Soil	10/27/22
B-N12-W04-438	210437-03	Soil	10/27/22
B-N14-W06-449	210437-04	Soil	10/27/22
B-N14-W12-449	210437-05	Soil	10/27/22
B-N12-W06-438	210437-06	Soil	10/27/22
B-N12-W10-438	210437-07	Soil	10/27/22
B-N14-W10-449	210437-08	Soil	10/27/22
B-N10-W09-430	210437-09	Soil	10/27/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
210437**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 210437**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 210437**

No Sample Data Qualified in this SDG

LDC #: 5599707

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/27/23

SDG #: 210437

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates <i>/LD</i>	N / A	210402-15
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N14-W16-449	210437-01	Soil	10/27/22
2	B-N14-W14-449	210437-02	Soil	10/27/22
3	B-N12-W04-438	210437-03	Soil	10/27/22
4	B-N14-W06-449	210437-04	Soil	10/27/22
5	B-N14-W12-449	210437-05	Soil	10/27/22
6	B-N12-W06-438	210437-06	Soil	10/27/22
7	B-N12-W10-438	210437-07	Soil	10/27/22
8	B-N14-W10-449	210437-08	Soil	10/27/22
9	B-N10-W09-430	210437-09	Soil	10/27/22
10				
11				
12				
13				

Notes:

<i>02-2572 MB</i>				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 210437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
B-N14-W16-449	210437-01	Soil	10/27/22
B-N14-W14-449	210437-02	Soil	10/27/22
B-N12-W04-438	210437-03	Soil	10/27/22
B-N14-W06-449	210437-04	Soil	10/27/22
B-N14-W12-449	210437-05	Soil	10/27/22
B-N12-W06-438	210437-06	Soil	10/27/22
B-N12-W10-438	210437-07	Soil	10/27/22
B-N14-W10-449	210437-08	Soil	10/27/22
B-N10-W09-430	210437-09	Soil	10/27/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 210437**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 210437**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 210437**

No Sample Data Qualified in this SDG

LDC #: 5599708

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/27/23

SDG #: 210437

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*  
2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	210402-21
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	B-N14-W16-449	210437-01	Soil	10/27/22
2	B-N14-W14-449	210437-02	Soil	10/27/22
3	B-N12-W04-438	210437-03	Soil	10/27/22
4	B-N14-W06-449	210437-04	Soil	10/27/22
5	B-N14-W12-449	210437-05	Soil	10/27/22
6	B-N12-W06-438	210437-06	Soil	10/27/22
7	B-N12-W10-438	210437-07	Soil	10/27/22
8	B-N14-W10-449	210437-08	Soil	10/27/22
9	B-N10-W09-430	210437-09	Soil	10/27/22
10				
11				
12				
13				

Notes:

1	62 - 2659 MP				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 212097

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
N14-W14-439	212097-02	Soil	12/06/22
N16-W14-442	212097-07	Soil	12/07/22
N15-W15-442	212097-08	Soil	12/07/22
N15-W12-442	212097-09	Soil	12/07/22
N14-W14-439MS	212097-02MS	Soil	12/06/22
N14-W14-439MSD	212097-02MSD	Soil	12/06/22

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

#### **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

#### **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

#### **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

#### **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 212097**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 212097**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 212097**

No Sample Data Qualified in this SDG

LDC #: 55997P1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 212097

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: AB  
2nd Reviewer: \_\_\_\_\_

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	N14-W14-439	212097-02	Soil	12/06/22
2	N16-W14-442	212097-07	Soil	12/07/22
3	N15-W15-442	212097-08	Soil	12/07/22
4	N15-W12-442	212097-09	Soil	12/07/22
5	N14-W14-439MS	212097-02MS	Soil	12/06/22
6	N14-W14-439MSD	212097-02MSD	Soil	12/06/22
7				
8				
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10				

Notes:

-	62-2857 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 212097

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
N14-W14-439	212097-02	Soil	12/06/22
N16-W14-442	212097-07	Soil	12/07/22
N15-W15-442	212097-08	Soil	12/07/22
N15-W12-442	212097-09	Soil	12/07/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

**I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

**II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

**III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

**IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

**V. Field Blanks**

No field blanks were identified in this SDG.

**VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

**VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

**VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

**IX. Field Duplicates**

No field duplicates were identified in this SDG.

**X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
212097**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 212097**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 212097**

No Sample Data Qualified in this SDG

LDC #: 55997P7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/27/23

SDG #: 212097

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	N14-W14-439	212097-02	Soil	12/06/22
2	N16-W14-442	212097-07	Soil	12/07/22
3	N15-W15-442	212097-08	Soil	12/07/22
4	N15-W12-442	212097-09	Soil	12/07/22
5				
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Notes:

-	62-2837 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 212097

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
N14-W14-439	212097-02	Soil	12/06/22
N16-W14-442	212097-07	Soil	12/07/22
N15-W15-442	212097-08	Soil	12/07/22
N15-W12-442	212097-09	Soil	12/07/22
N14-W14-439MS	212097-02MS	Soil	12/06/22
N14-W14-439MSD	212097-02MSD	Soil	12/06/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 212097**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 212097**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 212097**

No Sample Data Qualified in this SDG

LDC #: 55997P8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/22

SDG #: 212097

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A+ A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	N14-W14-439	212097-02	Soil	12/06/22
2	N16-W14-442	212097-07	Soil	12/07/22
3	N15-W15-442	212097-08	Soil	12/07/22
4	N15-W12-442	212097-09	Soil	12/07/22
5	N14-W14-439MS	212097-02MS	Soil	12/06/22
6	N14-W14-439MSD	212097-02MSD	Soil	12/06/22
7				
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Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 212149

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
PL-N07-447	212149-01	Soil	12/08/22
PL-N07-442	212149-02	Soil	12/08/22
PL-N07-447MS	212149-01MS	Soil	12/08/22
PL-N07-447MSD	212149-01MSD	Soil	12/08/22
PL-N07-442DL	212149-02DL	Soil	12/08/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

**XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

**XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

**XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

**XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
PL-N07-442	m,p-Xylene	Results exceeded calibration range.	Not reportable	-

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 212149**

Sample	Analyte	Flag	A or P	Reason
PL-N07-442	m,p-Xylene	Not reportable	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 212149**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 212149**

No Sample Data Qualified in this SDG

LDC #: 55997Q1a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 212149

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 1/13/23

Page: 1 of 1

Reviewer: JVG

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	SW	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	PL-N07-447	212149-01	Soil	12/08/22
2	PL-N07-442	212149-02	Soil	12/08/22
3	PL-N07-447MS	212149-01MS	Soil	12/08/22
4	PL-N07-447MSD	212149-01MSD	Soil	12/08/22
5	2 DL	L-02 DL	L	L
6				
7				
8				
9				
10				

Notes:

1	02-2863 MB				



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 212149

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
PL-N07-447	212149-01	Soil	12/08/22
PL-N07-442	212149-02	Soil	12/08/22
PL-N07-447DUP	212149-01DUP	Soil	12/08/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
212149**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 212149**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 212149**

No Sample Data Qualified in this SDG

LDC #: 55997Q7

### VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 212149

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	PL-N07-447	212149-01	Soil	12/08/22
2	PL-N07-442	212149-02	Soil	12/08/22
3	PL-N07-447DUP	212149-01DUP	Soil	12/08/22
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

Notes:

-	02-29-25 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 212149

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
PL-N07-447	212149-01	Soil	12/08/22
PL-N07-442	212149-02	Soil	12/08/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 212149**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 212149**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 212149**

No Sample Data Qualified in this SDG

LDC #: 55997Q8  
 SDG #: 212149  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/22/22  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	PL-N07-447	212149-01	Soil	12/08/22
2	PL-N07-442	212149-02	Soil	12/08/22
3				
4				
5				
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Notes:

1	02-2919 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 23, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 212189

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SW-W01-449	212189-01	Soil	12/12/22
SW-W03-449	212189-02	Soil	12/12/22
SW-W06-449	212189-03	Soil	12/12/22
SW-W09-449	212189-04	Soil	12/12/22
SW-W11-449	212189-05	Soil	12/12/22
SW-W14-449	212189-06	Soil	12/12/22
SW-W16-449	212189-07	Soil	12/12/22
SW-S08-448	212189-08	Soil	12/12/22
SW-S10-448	212189-09	Soil	12/12/22
SW-W01-449MS	212189-01MS	Soil	12/12/22
SW-W01-449MSD	212189-01MSD	Soil	12/12/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 212189**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 212189**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 212189**

No Sample Data Qualified in this SDG

LDC #: 55997R1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 212189

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: MB

2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LES
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W01-449	212189-01	Soil	12/12/22
2	SW-W03-449	212189-02	Soil	12/12/22
3	SW-W06-449	212189-03	Soil	12/12/22
4	SW-W09-449	212189-04	Soil	12/12/22
5	SW-W11-449	212189-05	Soil	12/12/22
6	SW-W14-449	212189-06	Soil	12/12/22
7	SW-W16-449	212189-07	Soil	12/12/22
8	SW-S08-448	212189-08	Soil	12/12/22
9	SW-S10-448	212189-09	Soil	12/12/22
10	SW-W01-449MS	212189-01MS	Soil	12/12/22
11	SW-W01-449MSD	212189-01MSD	Soil	12/12/22
12				

Notes:

-	02-2851 MB				
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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 24, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 212189

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W01-449	212189-01	Soil	12/12/22
SW-W03-449	212189-02	Soil	12/12/22
SW-W06-449	212189-03	Soil	12/12/22
SW-W09-449	212189-04	Soil	12/12/22
SW-W11-449	212189-05	Soil	12/12/22
SW-W14-449	212189-06	Soil	12/12/22
SW-W16-449	212189-07	Soil	12/12/22
SW-S08-448	212189-08	Soil	12/12/22
SW-S10-448	212189-09	Soil	12/12/22
SW-W01-449DUP	212189-01DUP	Soil	12/12/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
212189**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 212189**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 212189**

No Sample Data Qualified in this SDG

LDC #: 55997R7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 212189

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SW-W01-449	212189-01	Soil	12/12/22
2	SW-W03-449	212189-02	Soil	12/12/22
3	SW-W06-449	212189-03	Soil	12/12/22
4	SW-W09-449	212189-04	Soil	12/12/22
5	SW-W11-449	212189-05	Soil	12/12/22
6	SW-W14-449	212189-06	Soil	12/12/22
7	SW-W16-449	212189-07	Soil	12/12/22
8	SW-S08-448	212189-08	Soil	12/12/22
9	SW-S10-448	212189-09	Soil	12/12/22
10	SW-W01-449DUP	212189-01DUP	Soil	12/12/22
11				
12				
13				

Notes:

1	02-2929 MB				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 212189

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SW-W01-449	212189-01	Soil	12/12/22
SW-W03-449	212189-02	Soil	12/12/22
SW-W06-449	212189-03	Soil	12/12/22
SW-W09-449	212189-04	Soil	12/12/22
SW-W11-449	212189-05	Soil	12/12/22
SW-W14-449	212189-06	Soil	12/12/22
SW-W16-449	212189-07	Soil	12/12/22
SW-S08-448	212189-08	Soil	12/12/22
SW-S10-448	212189-09	Soil	12/12/22

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 212189**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 212189**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 212189**

No Sample Data Qualified in this SDG

LDC #: 55997R8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 07/22/23

SDG #: 212189

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*  
2nd Reviewer: \_\_\_\_\_

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable                      ND = No compounds detected                      D = Duplicate                      SB=Source blank  
 N = Not provided/applicable                      R = Rinsate                      TB = Trip blank                      OTHER:  
 SW = See worksheet                      FB = Field blank                      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SW-W01-449	212189-01	Soil	12/12/22
2	SW-W03-449	212189-02	Soil	12/12/22
3	SW-W06-449	212189-03	Soil	12/12/22
4	SW-W09-449	212189-04	Soil	12/12/22
5	SW-W11-449	212189-05	Soil	12/12/22
6	SW-W14-449	212189-06	Soil	12/12/22
7	SW-W16-449	212189-07	Soil	12/12/22
8	SW-S08-448	212189-08	Soil	12/12/22
9	SW-S10-448	212189-09	Soil	12/12/22
10				
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13				

Notes:

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## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 23, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 301007

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SP-01	301007-01	Soil	01/03/23
SP-02	301007-02	Soil	01/03/23
SP-03	301007-03	Soil	01/03/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 301007**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 301007**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 301007**

No Sample Data Qualified in this SDG

LDC #: 55997S1a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 02/22/23

SDG #: 301007

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	lcs
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	SP-01	301007-01	Soil	01/03/23
2	SP-02	301007-02	Soil	01/03/23
3	SP-03	301007-03	Soil	01/03/23
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Notes:

- 03-0049 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 301007

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
SP-01	301007-01	Soil	01/03/23
SP-02	301007-02	Soil	01/03/23
SP-03	301007-03	Soil	01/03/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
301007**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG 301007**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG 301007**

No Sample Data Qualified in this SDG

LDC #: 55997S7

# VALIDATION COMPLETENESS WORKSHEET

Date: 02/22/23

SDG #: 301007

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	SP-01	301007-01	Soil	01/03/23
2	SP-02	301007-02	Soil	01/03/23
3	SP-03	301007-03	Soil	01/03/23
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Notes:

-	03-004 Mb				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 27, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 301007

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SP-01	301007-01	Soil	01/03/23
SP-02	301007-02	Soil	01/03/23
SP-03	301007-03	Soil	01/03/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 301007**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 301007**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 301007**

No Sample Data Qualified in this SDG

LDC #: 55997S8  
 SDG #: 301007  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	SP-01	301007-01	Soil	01/03/23
2	SP-02	301007-02	Soil	01/03/23
3	SP-03	301007-03	Soil	01/03/23
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Notes:

-	03-048 mp				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** April 18, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 301030

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
PL-N12-447	301030-01	Soil	01/04/23
PL-N12-442	301030-02	Soil	01/04/23
PL-N10-447	301030-03	Soil	01/04/23
PL-N10-442	301030-04	Soil	01/04/23

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
LCS (PL-N12-447 PL-N12-442)	Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	160 (71-118) 136 (66-126) 136 (64-123) 139 (78-122) 140 (77-124)	NA	-

### X. Field Duplicates

No field duplicates were identified in this SDG.

### XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

### XII. Target Analyte Quantitation

All analytes reported between the MDL and the RL were qualified as follows:

Sample	Analyte	Finding	Flag	A or P
PL-N10-442	Benzene	Results reported between the MDL and the RL.	J (all detects)	A

### XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

### XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to results reported between the MDL and the RL, data were qualified as estimated in one sample.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 301030**

Sample	Analyte	Flag	A or P	Reason
PL-N10-442	Benzene	J (all detects)	A	Target analyte quantitation

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 301030**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 301030**

No Sample Data Qualified in this SDG

LDC #: 55997T1a  
 SDG #: 301030  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: JVG  
 2nd Reviewer: J

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	SW	LC5
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	SW	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	PL-N12-447	301030-01	Soil	01/04/23
2	PL-N12-442	301030-02	Soil	01/04/23
3	PL-N10-447	301030-03	Soil	01/04/23
4	PL-N10-442	301030-04	Soil	01/04/23
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Notes:

03-0051 MH				
03-054				



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** February 27, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 301030

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
PL-N12-447	301030-01	Soil	01/04/23
PL-N12-442	301030-02	Soil	01/04/23
PL-N10-447	301030-03	Soil	01/04/23
PL-N10-442	301030-04	Soil	01/04/23
PL-N12-447MS	301030-01MS	Soil	01/04/23
PL-N12-447MSD	301030-01MSD	Soil	01/04/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 301030**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 301030**

No Sample Data Qualified in this SDG

**Aloha Café  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 301030**

No Sample Data Qualified in this SDG

LDC #: 55997T8  
 SDG #: 301030  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2A

Date: 02/22/23  
 Page: 1 of 1  
 Reviewer: JSC  
 2nd Reviewer: [Signature]

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	PL-N12-447	301030-01	Soil	01/04/23
2	PL-N12-442	301030-02	Soil	01/04/23
3	PL-N10-447	301030-03	Soil	01/04/23
4	PL-N10-442	301030-04	Soil	01/04/23
5	PL-N12-447MS	301030-01MS	Soil	01/04/23
6	PL-N12-447MSD	301030-01MSD	Soil	01/04/23
7				
8				
9				
10				
11				
12				
13				

Notes:

1	03-108 MB				

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** February 24, 2023  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 301030

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
PL-N12-447	301030-01	Soil	01/04/23
PL-N12-442	301030-02	Soil	01/04/23
PL-N10-447	301030-03	Soil	01/04/23
PL-N10-442	301030-04	Soil	01/04/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

### **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

### **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

### **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

### **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

### **V. Field Blanks**

No field blanks were identified in this SDG.

### **VI. Surrogates**

Surrogates were added to all samples as required by the method with the following exceptions:

Sample	Finding	Affected Analyte	Flag	A or P
PL-N10-447	Laboratory indicated surrogate recovery fell outside of control limits due to sample matrix effects and flagged "ip".	TPH as gasoline	J (all detects)	P

### **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

### **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate, data were qualified as estimated in one sample.

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
 301030**

Sample	Analyte	Flag	A or P	Reason
PL-N10-447	TPH as gasoline	J (all detects)	P	Surrogates

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
 Summary - SDG 301030**

No Sample Data Qualified in this SDG

**Aloha Café  
 Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
 Summary - SDG 301030**

No Sample Data Qualified in this SDG

LDC #: 55997T7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 6/22/23

SDG #: 301030

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	PL-N12-447	301030-01	Soil	01/04/23
2	PL-N12-442	301030-02	Soil	01/04/23
3	PL-N10-447	301030-03	Soil	01/04/23
4	PL-N10-442	301030-04	Soil	01/04/23
5				
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11				
12				
13				

Notes:

03-007 MB				





## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[jyabandeh@aspectconsulting.com](mailto:jyabandeh@aspectconsulting.com)

December 7, 2023

SUBJECT: Aloha Café - Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on October 2, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #57637:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
908023	Volatiles
911310	

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco  
[scuenco@lab-data.com](mailto:scuenco@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** October 25, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 908023

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16-073119	908023-01	Water	07/31/19
MW-18-073119	908023-02	Water	07/31/19
MW-14-073119	908023-03	Water	07/31/19
MW-14-073119RE	908023-03RE	Water	07/31/19
MW-13-073119	908023-04	Water	07/31/19
Dup-01-073119	908023-05	Water	07/31/19
Dup-01-073119RE	908023-05RE	Water	07/31/19
MW-17-073119	908023-06	Water	07/31/19
MW-19-073119	908023-07	Water	07/31/19
MW-7-073119	908023-08	Water	07/31/19
MW-11-073119	908023-09	Water	07/31/19
MW-11-073119RE	908023-09RE	Water	07/31/19
MW-6-073119	908023-10	Water	07/31/19
MW-12-080119	908023-11	Water	08/01/19
MW-2-080119	908023-12	Water	08/01/19
MW-10-080119	908023-13	Water	08/01/19
MW-10-080119RE	908023-13RE	Water	08/01/19
MW-9-080119	908023-14	Water	08/01/19
Rinse Blank-080119	908023-15	Water	08/01/19
MW-1-080119	908023-16	Water	08/01/19
MW-1-080119RE	908023-16RE	Water	08/01/19
Trip Blank	908023-17	Water	08/01/19
MW-12-080119MS	908023-11MS	Water	08/01/19

## **Introduction**

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip Blank was identified as a trip blank. No contaminants were found.

Sample Rinse Blank-080119 was identified as a rinse blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples MW-14-073119 and Dup-01-073119 and samples MW-14-073119RE and Dup-01-073119RE were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD ( $\leq 35$ )
	MW-14-073119	Dup-01-073119	
Vinyl chloride	2.7	2.8	4
Benzene	2400*	3500*	37
Toluene	32	45	34
Ethylbenzene	130	170*	27
m,p-Xylene	72	120	50
o-Xylene	18	25	33
Naphthalene	50	77	43

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

#### XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
MW-14-073119	Benzene	Results exceeded calibration range.	Not reportable	-
MW-14-073119RE	All analytes except Benzene	Results from undiluted analyses were more usable.	Not reportable	-
Dup-01-073119	Benzene Ethylbenzene	Results exceeded calibration range.	Not reportable	-
Dup-01-073119RE	All analytes except Benzene Ethylbenzene	Results from undiluted analyses were more usable.	Not reportable	-
MW-11-073119 MW-1-080119	Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	Results exceeded calibration range.	Not reportable	-
MW-11-073119RE MW-1-080119RE	All analytes except Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	Results from undiluted analyses were more usable.	Not reportable	-
MW-10-080119	Benzene Ethylbenzene m,p-Xylene Naphthalene	Results exceeded calibration range.	Not reportable	-
MW-10-080119RE	All analytes except Benzene Ethylbenzene m,p-Xylene Naphthalene	Results from undiluted analyses were more usable.	Not reportable	-

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 908023**

Sample	Analyte	Flag	A or P	Reason
MW-14-073119	Benzene	Not reportable	-	Overall assessment of data
MW-14-073119RE	All analytes except Benzene	Not reportable	-	Overall assessment of data
Dup-01-073119	Benzene Ethylbenzene	Not reportable	-	Overall assessment of data
Dup-01-073119RE	All analytes except Benzene Ethylbenzene	Not reportable	-	Overall assessment of data
MW-11-073119 MW-1-080119	Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	Not reportable	-	Overall assessment of data
MW-11-073119RE MW-1-080119RE	All analytes except Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	Not reportable	-	Overall assessment of data
MW-10-080119	Benzene Ethylbenzene m,p-Xylene Naphthalene	Not reportable	-	Overall assessment of data
MW-10-080119RE	All analytes except Benzene Ethylbenzene m,p-Xylene Naphthalene	Not reportable	-	Overall assessment of data

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 908023**

No Sample Data Qualified in this SDG

57637  
 LDC #: 45754A1a  
 SDG #: 908023  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Level II

Date: 10/24/19  
 Page: 1 of 2  
 Reviewer: JVB  
 2nd Reviewer:

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	RB = 19      TB = 22
VII.	Surrogate spikes	A	
VIII.	Matrix spike <del>Matrix spike duplicates</del>	A	
IX.	Laboratory control samples	A	LCS 1p
X.	Field duplicates	SW	D = 3/6, 4/7
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	SW	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank      RB = Rinse Blank

	Client ID	Lab ID	Matrix	Date
1	MW-16-073119	908023-01	Water	07/31/19
2	MW-18-073119	908023-02	Water	07/31/19
3	MW-14-073119	908023-03	Water	07/31/19
4	MW-14-073119RE	908023-03RE	Water	07/31/19
5	MW-13-073119	908023-04	Water	07/31/19
6	Dup-01-073119	908023-05	Water	07/31/19
7	Dup-01-073119RE	908023-05RE	Water	07/31/19
8	MW-17-073119	908023-06	Water	07/31/19
9	MW-19-073119	908023-07	Water	07/31/19
10	MW-7-073119	908023-08	Water	07/31/19
11	MW-11-073119	908023-09	Water	07/31/19
12	MW-11-073119RE	908023-09RE	Water	07/31/19
13	MW-6-073119	908023-10	Water	07/31/19
14	MW-12-080119	908023-11	Water	08/01/19
15	MW-2-080119	908023-12	Water	08/01/19

LDC #: 57637  
~~45754A1a~~  
 SDG #: 908023  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**  
 Level II

Date: 10/24/27  
 Page: 2 of 2  
 Reviewer: JVC  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260C)

	Client ID	Lab ID	Matrix	Date
16	MW-10-080119	908023-13	Water	08/01/19
100x 17	MW-10-080119RE	908023-13RE	Water	08/01/19
18	MW-9-080119	908023-14	Water	08/01/19
✓ 19	Rinse Blank-080119	908023-15	Water	08/01/19
20	MW-1-080119	908023-16	Water	08/01/19
100x 21	MW-1-080119RE	908023-16RE	Water	08/01/19
✓ 22	Trip Blank	908023-17	Water	08/01/19
23	MW-12-080119MS	908023-11MS	Water	08/01/19
24				
25				
26				

Notes:

09-1853MB					

BTEX, MTBE, EDB, EDC + Naphthalene = 1, 8, 10-21  
 ↓  
 + cVOCs = 2-7, 9, 22

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2. Octane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2. n-Propyl alcohol
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2. n-Pentane
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WWW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. p-Diethylbenzene	Z2.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GCMS VOA (EPA SW 846 Method 8260C)

Compound	Concentration (ug/L)		RPD (≤35%)	Difference (ug/L)	Limits (≤2xLOQ)
	3	6			
C	2.7	2.8	4		
V	2400*	3500*	37		
CC	32	45	34		
EE	130	170*	27		
RRR	72	120	50		
SSS	18	25	33		
MMM	50	77	43		

\*from 1/100 results

V:\Josephine\FIELD DUPLICATES\57637A1a aspect consulting aloha cafe diff nq.wpd

LDC #: 57637

**VALIDATION FINDINGS WORKSHEET**  
**Overall Assessment of Data**

Page: 1 of 1  
Reviewer: JVGMETHOD: GC/MS VOA (EPA SW 846 Method 8260<sup>c</sup>)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Y N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Compound	Finding	Qualifications
		3	V	> cal range	NR
		4	All except V	dil	
		6	V, EE	> cal range	
		7	All except above	dil	
		11, 20	V, CC, EE, RRR, SSS	> cal range	
		12, 21	All except above	dil	
		16	V, EE, RRR, MMM	> cal range	
		17	All except above	dil	✓

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** October 26, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 911310

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-1-112019	911310-01	Water	11/20/19
MW-2-112019	911310-02	Water	11/20/19
MW-6-112019	911310-03	Water	11/20/19
MW-7-112019	911310-04	Water	11/20/19
MW-9-112019	911310-05	Water	11/20/19
MW-10-112019	911310-06	Water	11/20/19
MW-11-112019	911310-07	Water	11/20/19
MW-12-112019	911310-08	Water	11/20/19
MW-13-112019	911310-09	Water	11/20/19
MW-14-112019	911310-10	Water	11/20/19
MW-16-112019	911310-11	Water	11/20/19
MW-17-112019	911310-12	Water	11/20/19
MW-18-112019	911310-13	Water	11/20/19
MW-18-112019DL	911310-13DL	Water	11/20/19
MW-19-112019	911310-14	Water	11/20/19
DUP-01-112019	911310-15	Water	11/20/19
Rinseblank	911310-16	Water	11/20/19
Trip blank	911310-17	Water	11/20/19
MW-2-112019MS	911310-02MS	Water	11/20/19

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260C

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

Sample Trip blank was identified as a trip blank. No contaminants were found.

Sample Rinseblank was identified as a rinse blank. No contaminants were found.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples MW-19-112019 and DUP-01-112019 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-19-112019	DUP-01-112019		
Benzene	1.1	1.1	-	0 (≤0.70)
Ethylbenzene	0.57	0.59	-	0.02 (≤0.28)
m,p-Xylene	1.9	2.0	-	0.10 (≤0.92)
o-Xylene	0.53	0.57	-	0.04 (≤0.26)
Naphthalene	0.53	0.33	-	0.20 (≤0.126)

## XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

## XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

## XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

## XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
MW-18-112019	Benzene	Results exceeded calibration range.	Not reportable	-
MW-18-112019DL	All analytes except Benzene	Results from undiluted analyses were more usable.	Not reportable	-

**Aloha Café  
Volatiles - Data Qualification Summary - SDG 911310**

Sample	Analyte	Flag	A or P	Reason
MW-18-112019	Benzene	Not reportable	-	Overall assessment of data
MW-18-112019DL	All analytes except Benzene	Not reportable	-	Overall assessment of data

**Aloha Café  
Volatiles - Laboratory Blank Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

**Aloha Café  
Volatiles - Field Blank Data Qualification Summary - SDG 911310**

No Sample Data Qualified in this SDG

LDC #: 57637B1a  
 SDG #: 911310  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Level II

Date: 10/24/23  
 Page: 1 of 2  
 Reviewer: JVB  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	RB = 17      TB = 18
VII.	Surrogate spikes	A	
VIII.	Matrix spike/ <del>Matrix spike duplicates</del>	A	(MS only)
IX.	Laboratory control samples	A	LCS 1/2
X.	Field duplicates	SW	D = 15 / 16
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	SW	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
00x	1 MW-1-112019	911310-01	Water	11/20/19
	2 MW-2-112019	911310-02	Water	11/20/19
	3 MW-6-112019	911310-03	Water	11/20/19
	4 MW-7-112019	911310-04	Water	11/20/19
	5 MW-9-112019	911310-05	Water	11/20/19
100x	6 MW-10-112019	911310-06	Water	11/20/19
100x	7 MW-11-112019	911310-07	Water	11/20/19
	8 MW-12-112019	911310-08	Water	11/20/19
	9 MW-13-112019	911310-09	Water	11/20/19
100x	10 MW-14-112019	911310-10	Water	11/20/19
	11 MW-16-112019	911310-11	Water	11/20/19
	12 MW-17-112019	911310-12	Water	11/20/19
	13 MW-18-112019	911310-13	Water	11/20/19
10x	14 MW-18-112019 <b>RE DL</b>	911310-13 <b>RE DL</b>	Water	11/20/19
	15 MW-19-112019      D	911310-14	Water	11/20/19

LDC #: 57637B1a  
 SDG #: 911310  
 Laboratory: Friedman & Bruya, Inc., Seattle, WA

**VALIDATION COMPLETENESS WORKSHEET**

Level II

Date: 10/29/23  
 Page: 2 of 2  
 Reviewer: JVC  
 2nd Reviewer:

**METHOD:** GC/MS Volatiles (EPA SW 846 Method 8260C)

	Client ID	Lab ID	Matrix	Date
16	DUP-01-112019 D	911310-15	Water	11/20/19
17	Rinseblank	911310-16	Water	11/20/19
18	Trip blank	911310-17	Water	11/20/19
19	MW-2-112019MS	911310-02MS	Water	11/20/19
20				
21				
22				

Notes:

09-2843 MB					

BTEX, MTBE, EPC, EDB, Naphthalene = 1-8, ~~11~~, 12, 17  
 (9 cpds)  
 ↓  
 + cVOCs = 9, 10, 13-16, 18, 11  
 (19 cpds)

Note: cVOCs were added to sample #11 w/ the report dated 8/30/23

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2. Octane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2. n-Propyl alcohol
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2. n-Pentane
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. p-Diethylbenzene	Z2.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GCMS VOA (EPA SW 846 Method 8260C)

Compound	Concentration (ug/L)		RPD ( $\leq 35\%$ )	Difference (ug/L)	Limits ( $\leq 2 \times \text{LOQ}$ )	Qualifications (Parent Only)
	<del>44</del> 15	<del>15</del> 16				
V	1.1	1.1		0	$\leq 0.70$	
EE	0.57	0.59		0.02	$\leq 0.28$	
RRR	1.9	2.0		0.10	$\leq 0.92$	
SSS	0.53	0.57		0.04	$\leq 0.26$	
MMM	0.53	0.33		0.20	$\leq 0.126$	

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## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[jyabandeh@aspectconsulting.com](mailto:jyabandeh@aspectconsulting.com)

November 29, 2023

SUBJECT: Aloha Café - Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on October 23, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #57781:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
308491	Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total
309537	Petroleum Hydrocarbons as Extractables,

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco  
[scuenco@lab-data.com](mailto:scuenco@lab-data.com)  
Project Manager/Senior Chemist



**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Aloha Café  
**LDC Report Date:** November 15, 2023  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 308491

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-18R-083023	308491-01	Water	08/30/23
MW-25R-083023	308491-02	Water	08/30/23
MW-26-083023	308491-03	Water	08/30/23
MW-29-083023	308491-04	Water	08/30/23
MW-19-083023	308491-05	Water	08/30/23
MW-30-083023	308491-06	Water	08/30/23
MW-31-083023	308491-07	Water	08/30/23
MW-16-083123	308491-08	Water	08/31/23
MW-32-083123	308491-09	Water	08/31/23
4W-18R-083023MS	308491-01MS	Water	08/30/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike**

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

#### **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

#### **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

#### **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

#### **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 308491**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 308491**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 308491**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike <del>Matrix spike duplicates</del>	A	
IX.	Laboratory control samples	A	LCS 10
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable ND = No compounds detected D = Duplicate SB=Source blank  
 N = Not provided/applicable R = Rinsate TB = Trip blank OTHER:  
 SW = See worksheet FB = Field blank EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-18R-083023	308491-01	Water	08/30/23
2	MW-25R-083023	308491-02	Water	08/30/23
3	MW-26-083023	308491-03	Water	08/30/23
4	MW-29-083023	308491-04	Water	08/30/23
5	MW-19-083023	308491-05	Water	08/30/23
6	MW-30-083023	308491-06	Water	08/30/23
7	MW-31-083023	308491-07	Water	08/30/23
8	MW-16-083123	308491-08	Water	08/31/23
9	MW-32-083123	308491-09	Water	08/31/23
10	4W-18R-083023MS	308491-01MS	Water	08/30/23
11				

Notes:

03-1982 MP					

BTEX + Naphthalene

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** November 15, 2023

**Parameters:** Total Petroleum Hydrocarbons as Gasoline

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 308491

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-083023	308491-01	Water	08/30/23
MW-25R-083023	308491-02	Water	08/30/23
MW-26-083023	308491-03	Water	08/30/23
MW-29-083023	308491-04	Water	08/30/23
MW-19-083023	308491-05	Water	08/30/23
MW-30-083023	308491-06	Water	08/30/23
MW-31-083023	308491-07	Water	08/30/23
MW-16-083123	308491-08	Water	08/31/23
MW-32-083123	308491-09	Water	08/31/23
MW-18R-083023DUP	308491-01DUP	Water	08/30/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method.

## **VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 308491**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 308491**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 308491**

No Sample Data Qualified in this SDG

LDC #: 57781A7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 1/14/23

SDG #: 308491

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: SW

2nd Reviewer: A

**METHOD:** GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18R-083023	308491-01	Water	08/30/23
2	MW-25R-083023	308491-02	Water	08/30/23
3	MW-26-083023	308491-03	Water	08/30/23
4	MW-29-083023	308491-04	Water	08/30/23
5	MW-19-083023	308491-05	Water	08/30/23
6	MW-30-083023	308491-06	Water	08/30/23
7	MW-31-083023	308491-07	Water	08/30/23
8	MW-16-083123	308491-08	Water	08/31/23
9	MW-32-083123	308491-09	Water	08/31/23
10	MW-18R-083023DUP	308491-01DUP	Water	08/30/23
11				
12				
13				

Notes:

1	03-2071 MB				

**Laboratory Data Consultants, Inc.**  
**Data Validation Report**

**Project/Site Name:** Aloha Café

**LDC Report Date:** November 15, 2023

**Parameters:** Total Petroleum Hydrocarbons as Extractables

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 308491

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-18R-083023	308491-01	Water	08/30/23
MW-25R-083023	308491-02	Water	08/30/23
MW-26-083023	308491-03	Water	08/30/23
MW-29-083023	308491-04	Water	08/30/23
MW-19-083023	308491-05	Water	08/30/23
MW-30-083023	308491-06	Water	08/30/23
MW-31-083023	308491-07	Water	08/30/23
MW-16-083123	308491-08	Water	08/31/23
MW-32-083123	308491-09	Water	08/31/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **III. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **IV. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **V. Field Blanks**

No field blanks were identified in this SDG.

## **VI. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VII. Matrix Spike/Matrix Spike Duplicates**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **VIII. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **IX. Field Duplicates**

No field duplicates were identified in this SDG.

## **X. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XI. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

LDC #: 57781A8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 11/14/23

SDG #: 308491

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JV

2nd Reviewer: [Signature]

**METHOD:** GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS ✓
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18R-083023	308491-01	Water	08/30/23
2	MW-25R-083023	308491-02	Water	08/30/23
3	MW-26-083023	308491-03	Water	08/30/23
4	MW-29-083023	308491-04	Water	08/30/23
5	MW-19-083023	308491-05	Water	08/30/23
6	MW-30-083023	308491-06	Water	08/30/23
7	MW-31-083023	308491-07	Water	08/30/23
8	MW-16-083123	308491-08	Water	08/31/23
9	MW-32-083123	308491-09	Water	08/31/23
10				
11				
12				
13				

Notes:

	03-2065 MB2				

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** November 15, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 309537

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IA-125-1-230928	309537-01	Air	09/28/23
IA-125-2-230928	309537-02	Air	09/28/23
IA-127-1-230928	309537-03	Air	09/28/23
IA-127-2-230928	309537-04	Air	09/28/23
IA-129-1-230928	309537-05	Air	09/28/23
IA-129-2-230928	309537-06	Air	09/28/23
IA-131-1-230928	309537-07	Air	09/28/23
IA-FD-230928	309537-08	Air	09/28/23
AMB-2-230928	309537-10	Air	09/28/23
VS-EFF-230928	309537-11	Air	09/28/23
CS-125-230928	309537-12	Air	09/28/23
CS-127-230928	309537-13	Air	09/28/23
CS-129-230928	309537-14	Air	09/28/23
CS-131-230928	309537-15	Air	09/28/23
VS-EFF-230928DUP	309537-11DUP	Air	09/28/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples IA-131-1-230928 and IA-FD-230928 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (≤35)	Difference (Limits)
	IA-131-1-230928	IA-FD-230928		
Benzene	0.59	0.66	-	0.07 (≤0.64)
Naphthalene	0.19	0.22	-	0.03 (≤0.104)

**XI. Internal Standards**

Internal standards data were not reviewed for Stage 2A validation.

**XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

**XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

**XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 309537**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 309537**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 309537**

No Sample Data Qualified in this SDG

LDC #: 57781B48a

**VALIDATION COMPLETENESS WORKSHEET**

Date: 11/14/23

SDG #: 309537

Stage 2A

Page: 1 of 1

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Reviewer: JVG

2nd Reviewer: A

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Duplicate sample analysis	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	b = 7/8
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Leak Check Compounds	-	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1	IA-125-1-230928	309537-01	Air	09/28/23
2	IA-125-2-230928	309537-02	Air	09/28/23
3	IA-127-1-230928	309537-03	Air	09/28/23
4	IA-127-2-230928	309537-04	Air	09/28/23
5	IA-129-1-230928	309537-05	Air	09/28/23
6	IA-129-2-230928	309537-06	Air	09/28/23
7	IA-131-1-230928 D	309537-07	Air	09/28/23
8	IA-FD-230928 D	309537-08	Air	09/28/23
9	AMB-2-230928	309537-10	Air	09/28/23
10	VS-EFF-230928	309537-11	Air	09/28/23
11	CS-125-230928	309537-12	Air	09/28/23
12	CS-127-230928	309537-13	Air	09/28/23
13	CS-129-230928	309537-14	Air	09/28/23
14	CS-131-230928	309537-15	Air	09/28/23

LDC #: 57781B48a

# VALIDATION COMPLETENESS WORKSHEET

Date: \_\_\_\_\_

SDG #: 309537

Stage 2A

Page: \_\_\_ of \_\_\_

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: \_\_\_\_\_

2nd Reviewer: \_\_\_\_\_

**METHOD:** GC/MS Volatiles (EPA Method TO-15)

	Client ID	Lab ID	Matrix	Date
15	VS-EFF-230928DUP	309537-11DUP	Air	09/28/23
16				
17				
18				

Notes:

03-2298 MB					

BTEX + Naphthalene

AMB-1-230928 - not analyzed, vacuum -30" Hg

## TARGET COMPOUND WORKSHEET

### METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2. n-Octane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2. n-Propyl alcohol
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2. n-Pentane
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2. n-Decane
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2. Chlorodifluoromethane
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2. cis-decahydronaphthalene
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2. trans-decahydronaphthalene
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2. n-Nonane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2. n-Undecane
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2. Chloroprene
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2. n-Butanol
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2. n-Butyl acetate
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2. Nitrobenzene
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. p-Diethylbenzene	Z2.

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GCMS VOA (EPA Method TO15)

Compound	Concentration (ug/m3)		RPD ( $\leq 35\%$ )	Difference (ug/m3)	Limits ( $\leq 2 \times \text{LOQ}$ )	Qualifications (Parent Only)
	7	8				
V	0.59	0.66		0.07	$\leq 0.64$	
MMM	0.19	0.22		0.03	$\leq 0.104$	

V:\Josephine\FIELD DUPLICATES\57781B48a aspect consulting aloha cafe diff.wpd

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café

**LDC Report Date:** November 15, 2023

**Parameters:** Volatiles

**Validation Level:** Stage 2A

**Laboratory:** Friedman & Bruya, Inc., Seattle, WA

**Sample Delivery Group (SDG):** 309537

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IA-125-1-230928	309537-01	Air	09/28/23
IA-125-2-230928	309537-02	Air	09/28/23
IA-127-1-230928	309537-03	Air	09/28/23
IA-127-2-230928	309537-04	Air	09/28/23
IA-129-1-230928	309537-05	Air	09/28/23
IA-129-2-230928	309537-06	Air	09/28/23
IA-131-1-230928	309537-07	Air	09/28/23
IA-FD-230928	309537-08	Air	09/28/23
AMB-2-230928	309537-10	Air	09/28/23
VS-EFF-230928	309537-11	Air	09/28/23
CS-125-230928	309537-12	Air	09/28/23
CS-127-230928	309537-13	Air	09/28/23
CS-129-230928	309537-14	Air	09/28/23
CS-131-230928	309537-15	Air	09/28/23
VS-EFF-230928DUP	309537-11DUP	Air	09/28/23

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Duplicate Sample Analysis**

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

## **X. Field Duplicates**

Samples IA-131-1-230928 and IA-FD-230928 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m <sup>3</sup> )		RPD (≤35)	Difference (Limits)
	IA-131-1-230928	IA-FD-230928		
APH EC5-8 aliphatics	86	91	-	5 (≤150)
APH EC9-12 aliphatics	29	34	-	5 (≤50)

**XI. Internal Standards**

Internal standards data were not reviewed for Stage 2A validation.

**XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

**XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

**XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 309537**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 309537**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 309537**

No Sample Data Qualified in this SDG

LDC #: 57781B48b

**VALIDATION COMPLETENESS WORKSHEET**

Date: 11/14/23

SDG #: 309537

Stage 2A

Page: 1 of 2

Laboratory: Friedman &amp; Bruya, Inc., Seattle, WA

Reviewer: YG2nd Reviewer: JK**METHOD:** GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Duplicate sample analysis	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 7/8
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Leak Check Compounds	-	
XV.	Overall assessment of data	A	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

SB=Source blank  
OTHER:

	Client ID	Lab ID	Matrix	Date
1 <sup>+</sup>	IA-125-1-230928	309537-01	Air	09/28/23
2	IA-125-2-230928	309537-02	Air	09/28/23
3	IA-127-1-230928	309537-03	Air	09/28/23
4	IA-127-2-230928	309537-04	Air	09/28/23
5	IA-129-1-230928	309537-05	Air	09/28/23
6	IA-129-2-230928	309537-06	Air	09/28/23
7	IA-131-1-230928 b	309537-07	Air	09/28/23
8	IA-FD-230928 D	309537-08	Air	09/28/23
9	AMB-2-230928	309537-10	Air	09/28/23
10	VS-EFF-230928	309537-11	Air	09/28/23
11	CS-125-230928	309537-12	Air	09/28/23
12	CS-127-230928	309537-13	Air	09/28/23
13	CS-129-230928	309537-14	Air	09/28/23
14	CS-131-230928	309537-15	Air	09/28/23

LDC #: 57781B48b

# VALIDATION COMPLETENESS WORKSHEET

SDG #: 309537

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 1/14/23

Page: 2 of 2

Reviewer: SVG

2nd Reviewer: AK

**METHOD:** GC/MS Volatiles (MA-APH)

	Client ID	Lab ID	Matrix	Date
15	VS-EFF-230928DUP	309537-11DUP	Air	09/28/23
16				
17				
18				

Notes:

	03-2298 MB						

AMB-1-230928 - not analyzed, vacuum -30"Hg

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates****METHOD:** GCMS Volatiles (MA-APH)

Compound	Concentration (ug/m3)		RPD ( $\leq 35\%$ )	Difference (ug/m3)	Limits ( $\leq 2 \times \text{LOQ}$ )	Qualifications (Parent Only)
	7	8				
APH EC5-8 aliphatics	86	91		5	$\leq 150$	
APH EC9-12 aliphatics	29	34		5	$\leq 50$	

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## LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC  
701 Second Ave., Suite 550  
Seattle, WA 98104  
ATTN: Jason Yabandeh  
[jyabandeh@aspectconsulting.com](mailto:jyabandeh@aspectconsulting.com)

January 3, 2024

SUBJECT: Aloha Café - Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on October 20, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

### **LDC Project #58049 A, D:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
008261	Volatiles
011339	

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco  
[scuenco@lab-data.com](mailto:scuenco@lab-data.com)  
Project Manager/Senior Chemist



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** January 3, 2024  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 008261

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-14-081820	008261-12	Water	08/18/20
MW-16-081720	008261-13	Water	08/17/20
MW-18-081820	008261-15	Water	08/18/20
MW-19-081820	008261-16	Water	08/18/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 008261**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 008261**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 008261**

No Sample Data Qualified in this SDG

LDC #: 58049A1a

# VALIDATION COMPLETENESS WORKSHEET

Date: 12/26/23

SDG #: 008261

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *JW*

2nd Reviewer: *JW*

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS 1/2
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

SB=Source blank  
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	<del>MW-13-081720</del>	<del>008261-11</del>	<del>Water</del>	<del>08/17/20</del>
+				
2	MW-14-081820	008261-12	Water	08/18/20
-				
3	MW-16-081720	008261-13	Water	08/17/20
-				
4	MW-18-081820	008261-15	Water	08/18/20
+				
5	MW-19-081820	008261-16	Water	08/18/20
6				
7				
8				
9				
10				

Notes:

1	00-1852 MB				
2	00-1853 ↓				

(short list)

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Aloha Café  
**LDC Report Date:** January 3, 2024  
**Parameters:** Volatiles  
**Validation Level:** Stage 2A  
**Laboratory:** Friedman & Bruya, Inc., Seattle, WA  
**Sample Delivery Group (SDG):** 011339

<b>Sample Identification</b>	<b>Laboratory Sample Identification</b>	<b>Matrix</b>	<b>Collection Date</b>
MW-14-111820	011339-10	Water	11/18/20
MW-16-111620	011339-11	Water	11/16/20
MW-18-111620	011339-13	Water	11/16/20
MW-19-111720	011339-14	Water	11/17/20

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## **I. Sample Receipt and Technical Holding Times**

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## **II. GC/MS Instrument Performance Check**

Instrument performance check data were not reviewed for Stage 2A validation.

## **III. Initial Calibration and Initial Calibration Verification**

Initial calibration data were not reviewed for Stage 2A validation.

## **IV. Continuing Calibration**

Continuing calibration data were not reviewed for Stage 2A validation.

## **V. Laboratory Blanks**

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## **VI. Field Blanks**

No field blanks were identified in this SDG.

## **VII. Surrogates**

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VIII. Matrix Spike**

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## **IX. Laboratory Control Samples**

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## **X. Field Duplicates**

No field duplicates were identified in this SDG.

## **XI. Internal Standards**

Internal standard data were not reviewed for Stage 2A validation.

## **XII. Target Analyte Quantitation**

Raw data were not reviewed for Stage 2A validation.

## **XIII. Target Analyte Identification**

Raw data were not reviewed for Stage 2A validation.

## **XIV. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café**  
**Volatiles - Data Qualification Summary - SDG 011339**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Laboratory Blank Data Qualification Summary - SDG 011339**

No Sample Data Qualified in this SDG

**Aloha Café**  
**Volatiles - Field Blank Data Qualification Summary - SDG 011339**

No Sample Data Qualified in this SDG

**METHOD:** GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	rcs/d
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate      SB=Source blank  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank      OTHER:  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

	Client ID	Lab ID	Matrix	Date
1	MW-14-111820	011339-10	Water	11/18/20
2	MW-16-111620	011339-11	Water	11/16/20
3	MW-18-111620	011339-13	Water	11/16/20
4	MW-19-111720	011339-14	Water	11/17/20
5				
6				
7				
8				
9				
10				

Notes:

1	00-2696 MB				
2	00-2545 ↓				

(Short list)

# **APPENDIX E**

## **Terrestrial Ecological**

## **Evaluation Form**



# Voluntary Cleanup Program

## Washington State Department of Ecology Toxics Cleanup Program

### TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

**Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.**

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation>.

#### Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are documenting an evaluation.

Facility/Site Name: Texaco Strickland Site

Facility/Site Address: 6808 196<sup>th</sup> Street, Lynnwood, WA

Facility/Site: Facility 27496218 / CSID 12541	VCP Project No.: N/A – Agreed Order #14315
---	--

#### Step 2: IDENTIFY EVALUATOR

Please identify below the person who conducted the evaluation and their contact information.

Name: Andrew Yonkofski

Title: Senior Hydrogeologist

Organization: Aspect Consulting, LLC

Mailing address: 710 Second Avenue, Suite 550

City: Seattle

State: WA

Zip code: 98106

Phone: 404-272-3488

Fax:

E-mail: ayonkofski@aspectconsulting.com

### Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

#### A. Exclusion from further evaluation.

##### 1. Does the Site qualify for an exclusion from further evaluation?

- Yes *If you answered "YES," then answer **Question 2**.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to **Step 3B** of this form.*

##### 2. What is the basis for the exclusion? Check all that apply. Then skip to **Step 4** of this form.

Point of Compliance: WAC 173-340-7491(1)(a)

- All soil contamination is, or will be,\* at least 15 feet below the surface.
- All soil contamination is, or will be,\* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

- All contaminated soil, is or will be,\* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

- There is less than 0.25 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.
- For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

- Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

\* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

± "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

# "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

**B. Simplified evaluation.**

**1. Does the Site qualify for a simplified evaluation?**

- Yes *If you answered "YES," then answer **Question 2** below.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to **Step 3C** of this form.*

**2. Did you conduct a simplified evaluation?**

- Yes *If you answered "YES," then answer **Question 3** below.*
- No *If you answered "NO," then skip to **Step 3C** of this form.*

**3. Was further evaluation necessary?**

- Yes *If you answered "YES," then answer **Question 4** below.*
- No *If you answered "NO," then answer **Question 5** below.*

**4. If further evaluation was necessary, what did you do?**

- Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*
- Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

**5. If no further evaluation was necessary, what was the reason? Check all that apply. Then skip to **Step 4** of this form.**

Exposure Analysis: WAC 173-340-7492(2)(a)

- Area of soil contamination at the Site is not more than 350 square feet.
- Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

- No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

**C. Site-specific evaluation.** A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. See WAC 173-340-7493(1)(c).

**1. Was there a problem?** See WAC 173-340-7493(2).

- Yes    *If you answered "YES," then answer **Question 2** below.*
- No    *If you answered "NO," then identify the reason here and then skip to **Question 5** below:*
- No issues were identified during the problem formulation step.
  - While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

**2. What did you do to resolve the problem?** See WAC 173-340-7493(3).

- Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

**3. If you conducted further site-specific evaluations, what methods did you use?**

*Check all that apply. See WAC 173-340-7493(3).*

- Literature surveys.
- Soil bioassays.
- Wildlife exposure model.
- Biomarkers.
- Site-specific field studies.
- Weight of evidence.
- Other methods approved by Ecology. If so, please specify:

**4. What was the result of those evaluations?**

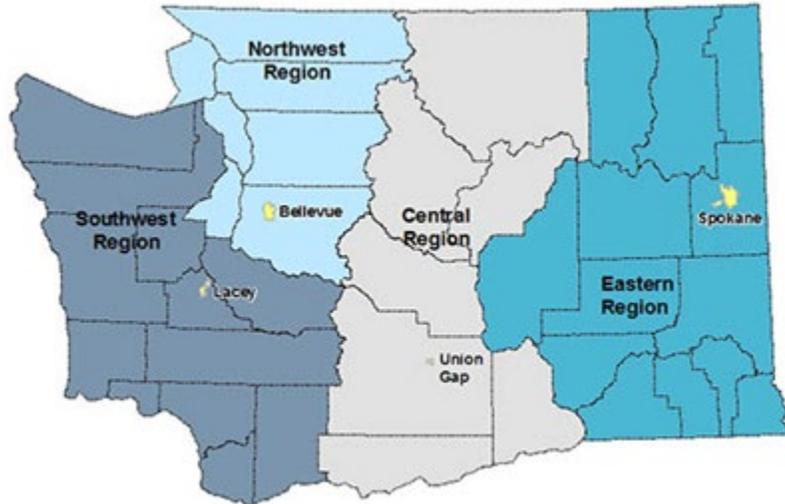
- Confirmed there was no problem.
- Confirmed there was a problem and established site-specific cleanup levels.

**5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?**

- Yes    If so, please identify the Ecology staff who approved those steps:
- No

## Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



<b>Northwest Region:</b> Attn: VCP Coordinator 3190 160 <sup>th</sup> Ave. SE Bellevue, WA 98008-5452	<b>Central Region:</b> Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
<b>Southwest Region:</b> Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	<b>Eastern Region:</b> Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.

## **APPENDIX F**

**Report Limitations and**

**Guidelines for Use**

# REPORT LIMITATIONS AND USE GUIDELINES

## Reliance Conditions for Third Parties

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This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, a Geosyntec company (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

## Services for Specific Purposes, Persons, and Projects

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Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

## This Report Is Project-Specific

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Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

## **Geoscience Interpretations**

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The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

## **Discipline-Specific Reports Are Not Interchangeable**

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The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

## **Environmental Regulations Are Not Static**

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Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

## **Property Conditions Change Over Time**

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This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

## **Phase I ESAs – Uncertainty Remains After Completion**

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Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”, ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

## **Historical Information Provided by Others**

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Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

## **Exclusion of Mold, Fungus, Radon, Lead, and HBM**

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Aspect's services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect's services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect's services do not include an evaluation of radon or lead in drinking water, unless specifically requested.